

hidrometeorologiis instituti

**2014 wlis
samecniero angariSi**

institutis direqtori: Tengiz cincaZe, teqnikis mecnierebaTa akademiuri doqtori;
institutis samecniero sabWos Tavmjdome: nodar begaliSvili, fiz.-maT., mecn.doqtori.

wylis resursebisa da hidrologiuri prognozebis ganyofileba

ganyofilebis gamge - begaliSvili nodari aleqsandres Ze, fiz.-maT., mecn.doqtori

samecniero erTeulis personaluri Semadgenloba:

basilaSvili cisana zaqarias asuli- mTavari mecnieri TanamSromeli

grigolia gurami luarsabis Ze- mTavari mecnieri TanamSromeli

comaia vasili Sarvanis Ze- mTavari mecnieri TanamSromeli

cincaZe Tengizi nodaris Ze- mTavari mecnieri TanamSromeli

mamasaxlisi Julivari giorgis Ze- mTavari mecnieri TanamSromeli

saluqvaZe manana evtixis asuli- mTavari mecnieri TanamSromeli

SveliZe omari giorgis Ze- mTavari mecnieri TanamSromeli

xerxeuliZe giorgi iraklis Ze- mTavari mecnieri TanamSromeli

gorgijaniZe sofio nikoloZis asuli- ufrosi mecnieri TanamSromeli

mesxia ramazi Salvas Ze- ufrosi mecnieri TanamSromeli

begaliSvili nino nodaris asuli- ufrosi mecnieri TanamSromeli

cincaZe nunu Tengizis asuli- mecnieri TanamSromeli

jinWaraZe goCa avTandilis Ze- mecnieri TanamSromeli

kobaxiZe naTela SoTas asuli- mecnieri TanamSromeli

saqarTvelos saxelmwifo biujetis dafinansebiT 2014 wlisaTvis
dagegmili da Sesrulebuli samecniero-kvleviTi samuSaoebi

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| # | gegmiT gaTvaliswinebuli da Sesrulebuli samuSaos dasaxeleba mecnierების დარგისა და სამეცნიერო მმართველების მიწიწებიწ | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
| 1 | zvavsaSiSi dasaxlebuli punqtebis gamovlenis da zvavsaSiSroebis maxasia-Teblebis dadgenis safuZvelze zvavsawinaaRmdego RonisZiebebis rekomenda-ciebis SemuSaveba (2012-2014 ww.),geografiis mecniereba, hidrologia | mTavari mecnier TanamSromeli, geografiis mecnierebaTa akademiuri doqtori manana saluqvaZe | mecnier TanamSromlebi: naTela kobaxiZe, goCa jinWaraZe |
| zvavSemkrebebis morfometriuli da zvavebis dinamikuri maxasiaTeblebis gamoTvlis Sedegad gamovlinda 600-ze meti zvavi, romelic dasaxlebul punqtebs emuqreba. dadginda 343 dasaxlebuli punqti, romelTagan 78-Si sxvadasxva wlebSi aRiniS-neboda msxverpli da nგრევა, 82-Si - nგრევა, 63-Si dazianeba, xolo 120 dasaxlebuli punqti potenciurad zvavsaSiSia. Sedgenilia Sesabamisi ruka. ganxilulia zvavsawi-naaRmdego RonisZiebebi, romelTagan mniSvnelovania zvavebis Camosvlis drouli prognozireba, mosaxleobisaTvis sacxovreblad usafrTxo adgilebis SerCeva, zva-vebisagan dacvis kompleqsuri sistemis gamoyeneba, nakrZali teritoriebis gazrda da tyis Wris akrZalva, garda sanitaruli Wrisa, zvavebis profilaqtikuri CamoSveba da zvavebisagan dacvis Tana-medrove meTodebis gamoyenebis SesaZlebloba dausaxlebel adgilebSi | | | |
| | samuSaos dasaxeleba | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
| 2 | saqarTvelos hidrologiuri da glaciologiuri atlasის დამუშავება | n.begaliSvili | n.begaliSvili, T.cincaZe, v.comaia, g.xerxeuliZe, m.saluqvaZe, c.basilaSvili, e.elizbaraSvili, l.inwkirveli n.aruTiniani k.TavarTqilaZe, g.grigolia n.n.begaliSvili, n.cincaZe, n.xufenia, g.gaCeCilaZe, l.Wareli, s.gorgijaniZe, n.gogiberiZe |
| proeqti gardamavalია. გრვდება მასალები საკარტველოს ჰიდროლოგიური და გლიციოლოგიური ატლასისათვის. | | | |
| 3 | აქტიური ზემოქმედების ზონის მდინარეწა წყალმცირობის რისკების შესწავლა და სადაპტაციო ღონისძიებ- | c.basilaSvili | c.basilaSvili g.grigolia, s.gorgijaniZe |

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| | ebis SemuSaveba | | |
| Sefasdeba mdinareTa wyalmcirobis periodis calkeuli Tveebisa da minimaluri wylis xarjebis maxasiaTeblebi | | | |
| 4 | aWaris regionSi Rvarcofuli saSiS-roebis xasiaTis Sefaseba da gavr-celebis zonebis dadgena zaralis Sesarbileblad rekomendaciebis SemuSavebiT | g.xerxeuliZe | g.xerxeuliZe |
| Sefasebuli iqneba aWaris regionis Rvarcofuli saSiSroeba | | | |
| 5 | dasavleT saqarTveloSi arsebuli sarwyavi farTobebis Sefaseba da maTi SesaZlo gazrdis perspeqtive-bi klimatis cvlilebis gaTvaliswine-biT | o.SveliZe | o.SveliZe, i.gelaZe, J.mamasaxlisi |
| dadgindeba arsebuli da perspeqtivisTvis dasaxuli sarwyavi sistemebis da maTze mibmuli miwebis farTobebi. | | | |

* publikaciebi:

a) saqarTveloSi

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnaliskrebulis dasaxeleba | Jurnaliskrebulis nomeri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
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| 1 | s. gorgijaniZe | turizmis ganviTarebis perspeqtivebi svaneTis sakurorto zonaSi, katastrofuli bunebrivi movlenebis gaTvaliswinebiT saqarTvelos teqnikuri universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.45-48 |
| <p>saqarTvelo gamoirCeva Tavisi turistuli potencialiT. misi bunebrivi pirobebi da istoriul-eTnografiuli RirSesaniSnaobebi, xels uwyobs ufro ganaviTaros misi turistul-rekreaciuli resursebi. 2010 wlidan masiurad daiwyo, turistuli resursis srulad gamoyeneba, ramac gamoiwvia svaneTis istoriuli kuTxis axali saxiT danaxva msflios asparesze. Tumca, aq unda aRiniSnos rom svaneTi gamoirCeva, ara marto misi bunebiT da RirSesaniSnaobebiT, aramed rTuli da maravalferovani reliefiT, klimaturi pirobebiTa da Sida wylebiT. svaneTSi warsulSi da dResac mimdinareobs iseTi katastrofuli movlenebi, rogoricaa: Tovlis zvavebi; mewyerebi; wyaldidobebi da qvaTacvenebi. amgvარი procesebi zians ayenebs, rogorc soflis mosaxleobas, aseve maT sasoflo savargulebsac. amJamad kuTxe gamoirCeva turistuli aRmavlobiT, rac ganapirobebs stiquri movlenebis Seswavlis ufro detalur da Zirfesvian gamokvlevas. aucilebelia ganxiluli iyos yvela movlena da Catardes, is saWiro RonisZieba, romelic Searbilebs stiquri procesebis ganviTarebis tendeciebs da sakurorto zona ufro metad iqneba daculi.</p> | | | | | |
| 2 | J. mamasaxlisi, i.gelaZe, o. SveliZe | dasavleT saqarTvelos energetikulad mZlavr mdinareTa wyaldidobis maqsimaluri xarjebis gaangariSeba da prognozireba saqarTvelos teqnikuri universitetis hidrometeorologiis institutis SromaTa krabuli, | t.120 | Tbilisi, hidrometeorologiis instituti | gv.49-51. |
| <p>naSromSi ganxilulia dasavleT saqarTvelos mdinareebze gavlili wyaldidobebis maqsimaluri xarjebis gaangariSeba korelaciuri kavSirebis gamoyenebis gziT. mis ganmsazRvrel ZiriTad faqtorebs Soris miRebulia saangariSo regresiis damokidebulebebi, romlebic adgilobrив მოყმედ ფაქტორთა ერTობიობის, aseve TiToeulis cal-calke nawilobrivi Sefasebis, saZiebeli sididis (maqsimaluri xarjis), rogorc yvela faqtoris funqciad da maTgan yvelaze efeqturis SerCevis saSualebas iZleva.</p> | | | | | |
| 3 | I. Sengelia, g. korZaxia, g. Tvauri, v. comaia | suaTisis myinvarebis kvlevis Sedegebi Tanamgzavruli distanciuri zondirebis safuZvelze saqarTvelos teqnikuri universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.52-56 |
| <p>statiaSi warmodgenilia myinvar suaTisis samecniero kvlevis Sedegebi. kvlevaSi gamoyenebulia maRali sivciTi garCevadobis Tanamgzavruli monacemebi. samuSao Sesrulebulia ssip SoTa rusTavelis erovnuli samecniero fon-</p> | | | | | |

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| dis fundamenturi kvlebebisaTvis saxelmwifo samecniero grantis proeqtis FR /586/9-110/13 farglebSi. | | | | | |
| 4 | m. saluqvaZe, n. kobaxiZe, g. jinWaraZe | zvavsawinaaRmdego RonisZiebebi da maTi ganxorcielebis SesaZlebloba saqarTveloSi. saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.57-59. |
| zvavebis warmoqmnis riskis gaTvaliswinebiT ganxilulia saqarTveloSi gasatarebeli zvavsawinaaRmdego RonisZiebebi da maTi gamoyenebis praqtikuli aspeqtebi. | | | | | |
| 5 | basilaSvili c. | saqarTvelos mdinareTa maqsimaluri xarjebis grZelvadiani prognozireba saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.60-63. |
| saqarTvelos mdinareTa wylis maqsimaluri xarjebis grZelvadiani (1 – 3 Tvis winswrebis) prognozebi, romelTa gamoyenebiT SesaZlebelia Tavidan aviciloT didi materialuri zarali. | | | | | |
| 6 | beritaSvili b., kapanaZe n., SvangiraZe m | klimatis cvlilebis gavlenis Sefasebamd. enguris Camonadenze. saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.64-68 |
| mdinare enguris auzis myinvarTaA ukve dafiqsirebuli degradaciisa da regionSi temperaturis gazomili da prognozirebuli cvlilebebis safuZvelze Sefasebulia globaluri daTbobis savaraudo gavlena myinvarTa farTobesba da myinvarul Camonadenze. Seswavlilia myinvar WalaaTze Catarebuli gazomvebis sxvadasxva seriebis mixedviT damokidebuleba zedapirul modnobasa da myinvarul Camonadens Soris. garkveuli daSvebebis gaTvaliswinebiT prognozirebulia 2100 wlisTvis enguris auzSi myinvarTa amJamindeli savaraudo farTobebis, myinvaruli Camonadenisa da sruli Camonadenis Semcirebis raodenobrivi maCveneblebi. | | | | | |
| 7 | basilaSvili c., gorgijaniZe s., grigolia g., fifia g. | saqarTvelos mdinareTa wyaldidobebis formirebis Taviseburebebi da maTi sivrcul-droiTi cvlilebebis tendenciebi saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.69-72. |
| saqarTvelos mdinareTa magaliTze aRwerilia mTian regionSi wyaldidobis formirebis Taviseburebebi. wyaldidobis Camonadenis mravalwliuri dinamikis amsaxveli trendebiT dadgenilia maTi cvlilebis tendenciebi. | | | | | |
| 8 | xerxeuliZe g | Rvarcofuli saSiSroebis drosa da sivrcesi prognozirebis amocanebi, zaralis riskis Serbilebis problemis SemadgenlobaSi, da maTi gadaw- | t.120 | Tbilisi, hidrometeorologiis instituti | gv.73-77. |

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| | | <p>yvetis Sesazleblobis Sefaseba.</p> <p>saqarTvelos teqniki universitetis hidrometeorologiis institutis Sromata krabuli,</p> | | | |
| <p>mocemulia ZiriTadi amocanebis CamonaTvali, romelTa gadawyveta saWiroa Rvarcofuli movlenebiT gamowveuli zaralis Tavidan asacileblad an Sesarbileblad. ganixleba Rvarcofuli saSiSroebis SefasebisTvis gankuTvnilis sxvadasxva midgomebi. da kriteriumebi. ganixleba Rvarcofuli monitoringis Semadgenlobis gansazRvrasTan, organizebasTan da CatarebasTan dakavSirebuli zogadi da kerZo sakiTxebi.</p> | | | | | |

gadacemulia dasabeWdad

| # | avtori/ avtorebi | statiis saTauri, Jurnaliskrebulis dasaxeleba | Jurnaliskrebulis nomeri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------|---------------------|
| 1 | m. saluqvaZe, n. lomiZe | myari naleqebi saqarTvelos teritoriaze | gadacemulia kavkasiis geografiul JurnalSi | saqarTvelos geografiuli sazogadoeba, Tbilisi | 7 gv. |
| <p>meteorologiuri sadgurebis mravalwliuri monacemebis safuZvelze gamoTvliilia myari naleqebis maqsimaluri, saSualo da minimaluri mniSvnelobebi saqarTvelos teritoriaze. gamovlenilia maTi Taviseburebani gansakuTrebiT uxvTovlian, uxv-Tovlian, saSualoTovlian da mcireTovlian raionebSi.</p> | | | | | |
| 2 | M.Salukvadze, N. Lomidze | DDinamiks of Snow Cover in Georgia | gadacemulia Tbilisis saxelmwifo universitetis saerTaSoriso konferenciisatvis | Tb.iv.javaxiSvilis saxelobis saxelmwifo universiteti | 7 gv. |
| <p>Tovlis safaris simaRlis dinamikis gamosavlenad, mravalwliuri monacemebis analisis safuZvelze, dadgenilia Tovlis simaRlis maqsimaluri, saSualo da minimaluri mniSvnelobebi. agebulia maTi adgilis absolutur simaRlesTan damokidebulebis grafikebi da Sedgenilia Sesabamisi gantolebebi.</p> | | | | | |
| 3 | M.Salukvadze, N. | Peculiarities of Snow Cower | Journal of the | Natural Hazards. | 14 gv. |

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| | Lomidze | Distribution in Georgia | Prevention and Mitigation of natural hazards | Springer | |
| <p>warmodgenilia Tovlis safaris ganawilebis Taviseburebani saqarTveloSi. Tovlia-nobis mixedviT gamoiyo oTxi - gansakuTrebiT uxvTovliani, uxvTovliani, saSua-loTovliani da mcireTovliani raionebi. Sedgenilia Tovlis safaris ganawilebis maqsimaluri, saSualo da minimaluri simaRlis rukebi. aRniSnulia Tovlis safaris mniSvneloba da gavlena klimatze, hidrologiur da glaciologiur procesebze</p> | | | | | |
| 4 | n. a. begaliSvili, T. cincaZe, k. laSauri n. n. begaliSvili, n. cincaZe | aRmosavleT saqarTveloSi gvalvian pirobebSi mdinareTa Camonadenis formireba | gadacemulia Jurnal “mecniereba da teqnologiebi” - | saqarTvelos mecnierebaTa erovnuli akademia | |
| <p>Tbili, savegetacio da agreTve ivlisis periodebisaTvis dadgenilia md. alaznis zedapiruli da miwisqveSa Camonadenis analizuri kavSiri wyalSemkrebze ganviTarebuli gvalvianobis maxasiaTebelTan – hidroTermul koeficientTan. risTvisac gamoyenebulia Camonadenis empiriul-statistikuri da wyalbalansuri modelebi.</p> <p>Seswavlilia gvalvis pirobebSi Camonadenis formirebis Taviseburebani. Camonadenis SefasebebSi gaTvaliswinebulia Tbili sezonis Tveebis maqsimalur temperaturaTa da minimalur naleqTa jamebis mravalwliani dakvirvebebis mniSvnelobebi.</p> <p>SemoTavazebuli meTodi Sebrunebuli amocanis ganxilvis saSualebas izleva riTac Camonadenis dafiqsirebuli an saprognozo mniSvnelobis mixedviT Sesazlebelia gvalvianobis intensiurobis klasis dadgena da winaswarmetyveleba.</p> | | | | | |

* samecniero forumebis muSaobaSi monawileoba

a) saqarTveloSi

| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
|---|--------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| | m. saluqvaZe, n. kobaxiZe, g. jinWaraZe | saqarTvelos mTiani raonebis zvavsasiS dasaxlebul punqtebSi gasatarebeli zvavsawinaaRmdego RonisZiebebi | XVIII samecniero konferencia “geografiis Tanamedrove problemebi” 2014 wlis 19 dekembers saqarTvelos geografiuli sazogadoeba, Tbilisi |

ganxilulia saqarTvelos zvasaSiSi raonebi, dadgenilia 2550 zvasis morfometriuli da di namikuri maxasiaTeb-
lebi, amaTgan 603 zvavi dasaxlebul punqtebs, xolo 1947 sxvadasxva komunikaciebs emuqreba. gamovlinda
343 dasaxlebuli punqti, sadac zvavebma adamianTa msxverpli da didi materialuri zarali gamoiwvia. Sedgenilia
zvasaSiSroebis, zvavaqtiurobis, katastrofuli da sistematuri zvavebis gavrcelebis, zvasaSiSi da potenciurad
zvasaSiSi raonebis rukebi. warmodgenilia calkeul zvasaSiS raionSi gasatarebeli aqtiuri da pasiuri zavsawi-
naaRmdego RonisZiebebi

klimatologiis da agrometeorologiis ganyofileba

ganyofilebis gamge - elizbar elizbaraSvili, geografiis mecn. doqtori, profesori

samecniero erTeulis personaluri Semadgenloba:

melaZe giorgi – mTavari mecn. TanamSromeli

samukaSvili revazi – mTavari mecn. TanamSromeli

vaCnaZe jemali – mTavari mecn. TanamSromeli

qarTveliSvili liana – mTavari mecn. TanamSromeli

melaZe maia – mTavari mecn. TanamSromeli

SaviSvili nino – ufrosi mecn. TanamSromeli

elizbaraSvili Salva – ufrosi mecn. TanamSromeli

WeliZe nana – ufrosi mecn. TanamSromeli

vaSaymaZe nino – ufrosi mecn. TanamSromeli

diasamiZe cicino – mecn. TanamSromeli

saqarTvelos saxelmwifo biujetis dafinansebiT 2014 wlisaTvis
dagegmili da Sesrulebuli samecniero-kvleviTi samuSaoebi

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| # | gegmiT gaTvaliswinebuli da Ses- rulebuli samuSaos dasaxeleba mecnierebis dargisa da samecnie- ro mimarTulebis miTiTebiT | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
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| 1 | axali samSeneblo-klimaturi norme- bis gansazRvraklimatis cvlile- bis gaTvaliswinebiT (2012-2014ww). zusti da sabunismetyvelo mecnier- ebaTa dargi, dedamiwis Sem- swavlel mecnierebaTa mimarTu- leba | Liana qarTveliSvili | i.evCenko-mkurnaliZe, r.samu- kaSvili, j.vaCnaZe, n.SaviSvili |
| dasrulebuli kvleviT samuSaos (etapis) Sedegebi (anotacia) | | | |
| kvleviT samuSaoSi gansazRvruli iqna samSeneblo-klimaturi normebi saqarTvelos punqtებისათვის, რომლებიც მდებარეობენ სხვადასხვა კლიმატურ ზონებში. დაკვირვებული კლიმატური პარამეტრების გარდა გაცხადებულია სპეციალიზირებული კლიმატური მაქსიმალური ტემპერატურები, რომლებიც აუცილებელია სხვადასხვა პრაქტიკული (სამსახურის, ენერჯეტიკული, ჯანდაცვის) ამოცანების გადაწყვეტისთვის. მსოფლიო მეტეოროლოგიური ორგანიზაციის რეკომენდაციის თანახმად, აგრეთვე გაცხადებულია იკნა ბუნებრივი მოვლენის რეგისტრაციისათვის დაკვირვების სეზონის დასაწყისში დასრულების შემდეგ სამსახურის კონსტრუქციები. | | | |
| kvlevის Sedegad მიწის რეკომენდაციები უნდა დაედოს საფუძვლად სამსახურის ობიექტების დაპროექტებას. | | | |
| 2 | samuSaos dasaxeleba | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
| | saqarTvelos calkeuli administraci- uli regione bis klimatis da klima- turi resurse bis kvleva (kaxeTi) (2014-2016ww) | elizbar elizbaraSvili | g.melaZe, r.samukaSvili, j.vaCna- Ze, l.qarTveliSvili, m.melaZe, S.elizbaraSvili, n.vaSaymaZe, n.SaviSvili, n.Weli- Ze, c.diasamiZe |
| samuSao gardamavalia, Sesrulebulia pirveli etapi. momzadebulia sawyisi masala, Seqmnilia klimatur da agrok- limatur monacemTa kompiuteruli baza, Catarebulia maTi kontroli da pirveladi analizi. | | | |

* publikaciebi:

a) saqarTveloSi

saxelmZRvaneloebi

| # | avtori/avtorebi | saxelmZRvanelos saxelwodeba | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
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| 1 | l.qarTveliSvili, l. qurdaSvili | sareklamo saqmianobaturizmSi | qarTul-evropuli universiteti | 210 |
| <p>anotaciebi</p> <p>damxmare saxelmZRvanelo moicavs turistul sawarmoSi sareklamo saqmianobis ZiriTad safuZvlebs. moicavs cxra TavS da 22 paragrafs. saxelmZRvaneloSi detaluradaa ganxiluli reklamis arsi, adgili, roli, miznebi, amocanebi, struqtura da ZiriTadi funqciebi Tanamedrove marketinguli komunikaciis kompleksSi. gadmocemulia reklamis Taviseburebebi, saxeebi da sareklamo kampaniebis arsi turizmSi industriaSi.</p> <p>Gganxilulia turistul-rekreaciuli resursebis roli sakurorto meurneobaSi.</p> | | | | |

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnaliskrebulis dasaxeleba | Jurnaliskrebulis nomeri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|
| 1 | melaZe m., melaZe g. | agroekologiuri zonebis transformacia globaluri daTbobis pirobebSi. saqarTvelos soflis meurneobis mecnierebaTa akademiis momambe | t. 33 | saqarTvelos soflis meurneobis mecnierebaTa akademia | 211-214 |
| <p>naSromSi mocemulia globaluri daTbobis pirobebSi, momavlis scenariT vazisa da saSemodgomo xorblis kulturebis gavrcelebis (aqtiur temperaturaTa jamebis gaTvaliswinebiT) agroekologiuri zonebis cvlileba, vertikaluri zonalobis mixedviT.</p> | | | | | |
| 2 | melaZe m. | mcxeTa-mTianeTis regionis agroekologiuri zonebi. Tsu, II safakulteto samecniero konferencia zust da sabunebismetyvelo mecnierebebSi | http://conference.ens-2014.tsu.ge/uploads/52e1459fa4b50 | iv.javaxiSvilis Tbilisis saxelmwifo universiteti | (el. versia) |
| <p>mcxeTa-mTianeTis regionis mravalwliuri meteorologiuri dakvirvebebis maCvneblebis mixedviT, savegetacio periodisaTvis (IX-X) gamoTvllilia agrometeorologiuri maxasiaTeblebi - aqtiur temperaturaTa jami (10°C-is zeviT) da atmosferuli naleqebis jami (mm), romelTa safuZvelzec gamoyofilia 4 agroekologiuri zona, Sesabamisi</p> | | | | | |

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| agrokulturebis gavrcelebisaTvis. | | | | | |
| 3 | melaZe g., melaZe m. | kaxeTis regionis agroekologiuri zonebi. saqarTvelos soflis meurneobis mecnierebaTa akademiis moambe | t. 33 | saqarTvelos soflis meurneobis mecnierebaTa akademia | 215-218 |
| kaxeTis regionisaTvis mocemulia aqtur temperaturaTa (>10°C) da atmosferuli naleqebis jamebi (mm), romelTa safuZvelze raonebis mixedviT gamoTvlilia hidroTermuli koeficientebi. ganxiluli agroklimaturi parametrebis mixedviT gamoyofilia sasoflo-sameurneo kulturebis gavrcelebis 5 agroekologiuri zona. | | | | | |
| 4 | melaZe g., melaZe m. | imereTis regionis agroklimaturi pirobebis Sefaseba agrokulturebis racionalurad gaadgilebisa, produqtiulobisa da mosavlis prognozirebisaTvis. saerTaSoriso eleqtronuli konferenciis masalebi. „geografia da garemos Tanamedrove problemebi”. | http://sou.edu.ge/?lang_id=ENG#sthash.UmfFKcga.dpuf (el. versia) | soxumis saxelmwifo universiteti | 27-39 |
| imereTis regionisaTvis Sefasebulia agrokulturebis uzrunvelyofa aqtur temperaturaTa jamebiT. Tbil periodSi agrokulturebis siTboTi uzrunvelyofis prognozis praqtikuli gamoyenebis mizniT Sedgenilia regresiis gantolebebi. gamoyofilia agrokulturebis gavrcelebis 5 agroklimaturi zona. saSiSi meteorologiuri movlenebidan ganixileba wayinvebi, gvalva da Zlieri qarebi, maTi intesivobisa da Semarbilebeli RonisZiebebis gaTvaliswinebiT. Sedgenilia saprognozo gantolebebi. | | | | | |
| 5 | melaZe g., melaZe m. | klimatis cvlilebis gavlena sasoflo-sameurneo kulturebis agroklimatur maxasiaTeblebze (sagarejos magaliTze) saerTaSoriso konferenciis masalebi. „klimatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganvitarebaze”. | saerTaSoriso konferenciis SromaTa krebuli | saqarTvelos soflis meurneobis mecnierebaTa akademia | 194-197 |
| ganisazRvra aqtur temperaturaTa jamebi 1956-2005 ww periodSi da gamoisaxa misi msvlelobis dinamika. gaanalizebuli da damuSavebuli iqna momavlis 2020-2050 ww saprognozo meteorologiuri monacemebi, romelTa klimaturi parametrebi gamoTvlilia ECHAM4-is modeliT A2 scenaris mixedviT. aRniSnuli scenariT savegetacio periodSi gamoTvlili da gaanalizebulia atmosferuli naleqebis, gvalvianobis, qarის cvlilebis tendenciebi da gamoyofilia agroklimaturi zonebi. | | | | | |
| 6 | melaZe m., megreliZe I., SvangiraZe m. | klimatis cvlilebis zegavlenis Sefaseba sasoflo-sameurneo kulturebis mosavlianobaze da wylis deficitze kaxeTSi. saerTaSoriso konferenciis masalebi. „klimatis cvli- | saerTaSoriso konferenciis SromaTa krebuli | saqarTvelos soflis meurneobis mecnierebaTa akademia | 190-194 |

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| | | leba da misi gavlena soflis meurneobis mdgrad da usafTxo ganviTarebaze”. | | | |
| naSromSi warmodgenilia klimatis cvlilebis zegavlenis Sefaseba siRnaRis raonis ZiriTadi kulturebis saSemodgomo xorblisa da mzesumziris mosavlianobasa da wylis moTxovnilebaze, rac ganxorcielda FAO-s (sakvebisa da soflis meurneobis organizacia) mier SemuSavebuli Aquacrop modelis gamoyenebiT warsulSi 1961-2010 da momavalSi 2070-2099 wlebisTvis. | | | | | |
| 7 | melaZe g., gogitiZe v., melaZe m. | kolxeTi - mevenaxeoba-maRvineobis unikaluri agroklimaturi zona. geografiis institutis SromaTa krebuli. `sazogadoebrivi geografiis aqturaluri problemebi”. miZRvnili saqarTvelos mecn. akad. wevrkoresp., prof. v.jaoSvilis dabadebidan 100 wliTavs. | konferenciis SromaTa krebulis axali seria 6(85) | Tsu-is geografiis instituti, geografiuli sazogadoeba, saq.-s mecn. erovnuli akademia | 145-151 |
| regionebis mixedviT, vazis wiTelyurZniani jiSebis aqtiuri siTbos jamiT gavrcelbis simaRliTi sazRvrebi, dadgenili iqna sxvadasxva simaRleze arsebuli meteorologiuri sadgurebisaTvis gamoTvliili aqtiuri siTbos saerTo raodenobiT. Sedgenilia regionebis mixedviT, vazis jiSebis aqtiur temperaturaTa jamebis gansazRvrisaTvis Sesabamisi gantolebebi. savegetacio periodSi, vazis teniT uzrunvelyofis xarixxis dasadgenad gamoTvliilia datenianebis maxasiaTeblebi (atmosferuli naleqebis jami (%), hTk, haeris SefardebiTi sinotive, %). mocemulia umaRlesi xarixxis Rvinomasalis mwarmoebeli vazis zogierTi wiTelyurZniani jiSis agroklimaturi daxasiaTeba. | | | | | |
| 8 | melaZe m., tatiSvili m., mkurnaliZe i., kaSauri m. | naxSirbadis sekvestri gautyeurebis da tyis degradaciis SemcirebisaTvis Tanamgzavruli teqnologiebis gamoyenebiT. saerTaSoriso-praqtikuli Jurnal `satyeo moambe” | #8 | saerTaSoriso-praqtikuli Jurnal | 16-20 |
| distanciuri zondirebis monacemebis klasifikaciisTvis gamoiyeneba speqtruli Serevis analizi (SMA). SMA iyenebs sayrden speqtrs, romelsac komponentur analizSi bolo mamravli ewodeba. misi gamoyeneba tyis gamosaxulebis klasifikaciisas uCvenebs, rom sxvadasxva tipis tyeebis piqselebi am bolo mamravlebSi sxvadasxva proporciiT Sedian. ganixileba damatebiT sxva ori meTodis gamoyenebac: teqsturuli gazomva da naxevar-variogramebi, romlebic aanalizeben nimuSis monacemebs mezobeli piqselis konteqstSi. | | | | | |
| 9 | qarTveliSvili 1., amiranaSvili a., trifomenko 1. | Tbilissa da peterburgSi haeris temperaturis saukunovani variaciebis da misi saSualo globaluri mniSvnelobebis SedarebiTi analizi. m.nodias geofizikis institutis Sro- | t. 132 | m.nodias geofizikis instituti | G5 |

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| | | maTa krebuli | | | |
| Catarebulia TbilisiSi da sanqt-peterburgSi haeris temperaturis saukunovani variaciebis da misi saSualo globaluri mniSvnelobebis SedarebiTi analizi. dadgenilia, rom cxvadasxva meteorologiuri sadguris mraValwliuri dakvirvebebis monacemebis gasaSualoeba unda warmoebdes avtokorelaciebis da maT rigebsi yvela periodulobis analizis gaTvaliswinebiT. | | | | | |
| 10 | i.mkurnaliZe, m.tatiSvili | elWequri procesebis sivrcul-droiTi variaciebi kaxeTis regionSi saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.22-24 |
| statiaSi ganxilulia elWequri procesebi kaxeTis regionSi moqmedi meteoadgurebis dakvirvebis monacemebis gamoyenebiT. statistikuri maxasiaTeblebis saSualebiT gamokvleulia regionis elWequri aqtivoba. | | | | | |
| 11 | n. WeliZe | haeris sinotive imereTis regionSiN saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.25-28 |
| gamokvleulia haeris sinotivis sivrciTi-droiTi struqtura imereTis regionis teritoriaze. gaanalizebulia wylis orTqlis parcialuri wnevis da haeris fardobiTi tenianobis wliuri svlis Taviseburebani, Sedgenilia maTi sivrcobrivi ganawilebis rukebi da gamovlenilia maTi ganawilebis geografiuli kanonzomierebebi, gamokvleulia mSral da notio dRe-Ta ricxvis wliuri da sezonuri svlis kanonzomierebebi. | | | | | |
| 12 | samukaSvili r., diasamiZe c. | imereTis regionis helioenergetikuli resursebi saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.29-31 |
| gaanalizebulia helioenergetikuli resursebis teritoriuli ganawilebis Taviseburebebi. | | | | | |
| 13 | samukaSvili r., diasamiZe c. | nisli imereTisregionSi saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.32-35. |
| gaanalizebulia nislis klimaturi maxasiaTeblebis teritoriuli ganawilebis Taviseburebebi. | | | | | |
| 14 | melaZe m.g., gogotiZe v.m./ | mevenaxeoba-meRvineobis agroklimaturi potenciali Sida qar- | t.120 | Tbilisi, hidrometeorologiis instituti | gv.36-40 |

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| | | TISI saqarTvelos teqnikuri universitetis hidrometeorologiis institutis SromaTa krabuli | | | |
| Sida qarTISI, mtkvris marjvena sanapiroze, mTebiT SemosazRvrul mdinareTa xeobebis mTel teritoriaze simaRliTi zonebis mixedviT klimaturi pirobebi erTferovan cvlilebas ganicdis. Rvinomasalebis sawarmoeblad gamoyofilia mikrozonebi: evropuli tipis sufris Rvonomasalebis, zR.donidan 450-600 m, bunebrivad cqrialat`atenuri” tipis Rvinomasalebis, zR.donidan 550-650 m da bunebrivad cqrialat-Sampanuri tipis Rvinomasalebis, zR.donidan 650-950 m. | | | | | |
| 15 | melaZe g.g., melaZe m.g. | klimatis cvlilebis gaTvaliswinebiT ZiriTadi sasursaTo kulturebis mowyvladobis scenarebi saqarTvelos teqnikuri universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.41-+44 |
| <p>mocemulia klimatis cvlilebis gaTvaliswinebiT (temperaturis 1 da 2°C-iT mateba dasavleT da aRmosavleT saqarTvelosaTvis, Sesabamisad) saSemodgomo da sagazafxulo kulturebis (xorbali, qeri, Wvavi da sxv.) mowyvladobis scenarebi.</p> <p>aRniSnuli kulturebis yvavilobis fazis vadebis dadgenisaTvis Sedgenilia haeris dReRamuri saSualo temperaturebis 20°C-ze gadasvlis TariRebis gansazRvris regresiiis gantolebebi zRvis donidan simaRleebis mixedviT.</p> | | | | | |

b) ucxoeTSi

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnalnis/krebulis dasaxeleba | Jurnalnis/krebulis nomeri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
|---|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------|---------------------|
| 1 | E. Elizbarashvili, N. B. Kutaladze, I. Keggenhoff, M. Elizbarashvili, B. M. Kikvadze, N. M. Gogia | Climate Indices for the Moistening Regimen in the Territory of Georgia amidst Global Warming. European Researcher | Vol.(66), № 1-1, 2014 | Sochi, Russia, Academic Publishing House <i>Researcher</i> | 102-107 |

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| | | | | | |
| <p>saqarTvelos 50 meteorologiuri sadguris 1936-2011 wlebis dakvirvebaTa monacemebis gamoyenebiT gamokvleulia datenianebis reJimis klimaturi indeqsebi- naleqebis dReRamuri maqsimუმების სასუალები, naleqiani და ანაღო პერიოდები. Sedgenilia am indeqsebis sivrciti struqturis geoinformაციული რუკები და გამokvleulia maTi დინამიკა გლობალური დაTბობის პირობეbsi. Sefasebulia არაკეTilsასურველი klimaturi პირობების განვიTარების რისკები- wyalmovardna, wyaldidoba, gvalva, gaudabnoeba.</p> | | | | | |
| 2. | E.Elizbarashvili, M. Elizbarashvili | The Thermal Regimes of Several Soil Types in Armenia. European Researcher | Vol.(68), № 2-1 | Sochi, Russia, Academic Publishing House <i>Researcher</i> | 300-307 |
| <p>somxeTis 30 meteorologiuri sadguris dakvirvebaTa monacemebis gamoyenebiT gamokvleulia სxვადასxვა ტიპის ნიადაგების სიTბური რეJიმი. Gგამokvleulia ნიადაგ-ატმოსფეროს სისტემაSi სიTბოცვლის Tავისებურებანი, ნიადაგის zედაპირის ტემპერატურის ცვლილება ადგილის სიმაღლეზე დამokიდებიT, სxვადასxვა ტიპის ნიადაგის zედაპირის ტემპერატურული რეJიმი და სიTბოს გავრცელების კანონზომიერებები ნიადაგის zედაპირულ და სიRმიT ფენეbsi. მიRებულის Sედეგები Cვენ ადრეულ გამokvლეუბTan ერTად იZლევა ნაTel warmოდგენას ამიერკავკასიის მრავალფეროვანი ნიადაგების სიTბური რეJიმის Sesახებ.</p> | | | | | |
| 3. | E. Elizbarashvili, O. Varazanashvili, N.Tsereteli, M.Elizbarashvili, Sh.Elizbarashvili, V.Gorgisheli | Droughts in Georgia. European Researcher | Vol.(68), № 2-1 | Sochi, Russia, Academic Publishing House <i>Researcher</i> | 308-316 |
| <p>saqarTvelos 30 meteorologiuri sadguris 1961-2010 wlebis dakvirvebaTa monacemebis gamoyenebiT gamokvleulia გვალვის ფორმების და განვიTარების რისკი, ინტენსივობა და ალბათობა სავეგეტაციო პერიოდის სxვადასxვა TვეებისაTვის, აგრეTვე გვალვიანი Tვეების განაწილება. SemuSavebulia გვალვიანობის სxვადასxვა მაქსიაTებების სივრცული განაწილებაTa რუკები.</p> | | | | | |
| 4. | E Elizbarashvili, A. Amiranashvili O.Varazanashvili N.Tsereteli M. Elizbarashvili Sh.Elizbarashvili M.Pipia | Hailstorms in the Territory of Georgia. European Geographical Studies | Vol.(2), № 2 | Sochi, Russia, Academic Publishing House <i>Researcher</i> | 55-69 |
| <p>saqarTvelos 50 meteorologiuri sadguris 1961-2012 wlebis dakvirvebaTa monacemebis gamoyenebiT gamokvleulia სეTყვიან დReTa რიქვი, მისი მოსვლის პერიოდები, ინტენსივობა, xანგრZლივობა, რაოდენობა, ცვალებ-</p> | | | | | |

doba da arealebi. miRebuli Sedegebi safuZvlad daedeba setyvasTan brZolis samuSaoebis ganaxlebas, rac igegmeba 2015 wlidan.

* samecniero forumebis muSaobaSi monawileoba

a) saqarTveloSi

| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
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| 1 | melaZe m. | mcxeTa-mTianeTis regionis agro- ekologiuri zonebi | 30-31 ianvari. iv.javaxiSvilis Tbi- lisis saxelmwifo universiteti |
| mcxeTa-mTianeTis regionis mravalwliuri meteorologiuri dakvirvebis maCveneblebis mixedviT, savegetacio periodisaTvis (IX-X) gamoTvllilia agrometeorologiuri maxasiaTeblebi - aqtur temperaturaTa jami (10°C-is ze- viT) da atmosferuli naleqebis jami (mm), romelTa safuZvelzec gamoyofilia 4 agroekologiuri zona, Sesabamisi agrokulturebis gavrcelebisaTvis. | | | |
| 2 | melaZe m., melaZe g. | imereTis regionis agroklimaturi pirobebis Sefaseba agrokulturebis racionalurad gaadgilebisa, produq- tiulobisa da mosavlis prognozire- bisaTvis | soxumis saxelmwifo universiteti |
| imereTis regionisaTvis Sefasebulia agrokulturebis uzrunvelyofa aqtur temperaturaTa jamebiT. Tbil periodSi agrokulturebis siTboTi uzrunvelyofis prognozis praqtikuli gamoyenebis mizniT Sedgenilia regresiis gantolebe- bi. gamoyofilia agrokulturebis gavrcelebis 5 agroklimaturi zona. saSiSi meteorologiuri movlenebidan ganixile- ba wayinvebi, gvalva da Zlieri qarebi, maTi intesivobisa da Semarbilebeli RonisZiebebis gaTvaliswinebiT. Sedgenilia saprognozo gantolebebi. | | | |
| 3 | melaZe m., melaZe g. | klimatis cvlilebis gavlena sasoflo- sameurneo kulturebis agroklima- tur maxasiaTeblebze (sagarejos magaliTze) | 2-4 oqtomberi. saqarTvelos soflis meurneobis mecnierebaTa akad- emia |
| ganisazRvra aqtur temperaturaTa jamebi 1956-2005 ww periodSi da gamoisaxa misi msvlelobis dinamika. ga- analizebuli da damuSavebuli iqna momavlis 2020-2050 ww saprognozo meteorologiuri monacemebi, romelTa klimaturi parametrebi gamoTvllilia ECHAM4-is modeliT A2 scenaris mixedviT. aRniSnuli scenariT savegetacio periodSi gamoTvllili da gaanalizebulia atmosferuli naleqebis, gvalvianobis, qaric cvlilebis tendenciebi da gamo- yofilia agroklimaturi zonebi. | | | |

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| 4 | melaZe m., megreliZe l., SvangiraZe m. | klimalis cvlilebis zegavlenis Sefaseba sasoflo-sameurneo kulturebis mosavlianobaze da wylis deficitze kaxeTSi | 2-4 oqtomberi. saqarTvelos soflis meurneobis mecnierebaTa akad-emia |
| warmodgenilia klimalis cvlilebis zegavlenis Sefaseba siRnaRis raionis ZiriTadi kulturebis saSemodgomo xorblisa da mzesumziris mosavlianobasa da wylis moTxovnilibaze, rac ganxorcielda FAO-s (sakvebisa da soflis meurneobis organizacia) mier SemuSavebuli Aquacrop modelis gamoyenebiT warsulSi 1961-2010 da momavalSi 2070-2099 wlebisTvis. | | | |
| 5 | melaZe g., melaZe m., gogitiZe v. | kolxeTi - mevenaxeoba-maRvineobis unikaluri agroklimaturi zona | 12-13 ivnisi. Tsu-is geografiis instituti; geografiuli sazogadoeba; saqarTvelos mecn. erovnuli akademia |
| regionebis mixedviT, vazis wiTelyurZniani jiSebis aqtiuri siTbos jamiT gavrcelebis simaRliTi sazRvrebi, dadgenili iqna sxvadasxva simaRleze arsebuli meteorologiuri sadgurebisaTvis gamoTvili aqtiuri siTbos saerTo raodenobiT. Sedgenilia regionebis mixedviT, vazis jiSebis aqtiur temperaturaTa jamebis gansazRvrisaTvis Sesabamisi gantolebebi. savegetacio periodSi, vazis teniT uzrunvelyofis xarixis dasadgenad gamoTvilia datenianebis maxasiaTeblebi (atmosferuli naleqebis jami (%), hTk, haeris SefardebiTi sinotive, %). mocemulia umaRlesi xarixis Rvinomasalis mwarmoebeli vazis zogierTi wiTelyurZniani jiSis agroklimaturi daxasiaTeba. | | | |
| 6. | Э.Элизбарашвили А.Амиранашвили, О.Варазанашвили, М.Пипия, Н.Церетели, М.Элизбарашвили | Некоторые данные о градобитиях в Восточной Грузии и экономическом ущербе от них | Международная конференция „Актуальные проблемы геофизики“ |
| ganxilulia aRmosavleT saqarTveloSi setyvianobis zogierTi monacemi. setyvis intensivoba, dazianebuli farTobebebi da xarixi. Sefasebulia setyvis zogierTi SemTxvevis ekonomikuri zarali. | | | |
| 7. | qarTveliSvili Ll., qurdaSvili l. | klimalis cvlilebis gavlena regionaluri turizmis ganviTarebase. | 2014 wlis 5-7ivlisi, mexuTe samecniero-praqtikuli konferencia turizmi, ekonomika, biznesi |
| naSromSi Sefasebulia turistul-rekreaciuli resursebis potenciali da misi ganawilebaTa Taviseburebani saqarTvelos sxvadasxva regionebSi. Ddadgenilia turistuli regionebi, sadac turizmis ganviTarebis potenciali aris maRali. | | | |

amindis prognozirebis, bunebrivi da teqnogenuri katastrofebis modelirebis ganyofileba

ganyofilebis gamge - marika tatiSvili, fiz.-maT. mecn. akad doqtori

samecniero erTeulis personaluri Semadgenloba:

beritaSvili bakuri – mTavari mecn. TanamSromeli

demetraSvili Temuri – mTavari mecn. TanamSromeli

TavarTqilaZe kukuri - mTavari mecn. TanamSromeli

xvedeliZe zurabi – mTavari mecn. TanamSromeli

Sengelia larisa – mTavari mecn. TanamSromeli

kapanaZe naili – ufrosi mecn. TanamSromeli

gelaZe giorgi – ufrosi mecn. TanamSromeli

mkurnaliZe irine – mecn. TanamSromeli

samxaraZe inga – mecn. TanamSromeli

saqarTvelos saxelmwifo biujetis dafinansebiT 2014 wlisaTvis
dagegmili da Sesrulebuli samecniero-kvleviT samuSaoebi

| # | gegmiT gaTvaliswinebuli da Sesrulebuli samuSaos dasaxeleba mecnierebis dargisa da samecniero mimarTulebis miTiTebiT | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------|
| 1 | amindis saprognozo modelebis damuSaveba saqarTvelos pirobebi-saTvis (2012-2014ww). dedamiwis Semswavleli mecnier-eba. geofizika, atmosferos fizika | marika tatiSvili | irine mkurnaliZe naili kapanaZe ramaz mesxia |
| dasrulebuli kvleviT samuSaos (etapis) Sedegebi (anotacia) | | | |
| Temis farglebSi damuSavda da adgilobrivi pirobebisadmi adaptirebuli iqna lokaluri teritoriiT Semosaz-Rvruli aris iseTi modelebi, romelTa meTodologiuri safuZvlebi efuZneba saerTaSoriso praqtikaSi farTod gamoyenebul mimarTulebebs, rogoricaa WRF-EMS (garemos modelirebis sistema) da WRF-ARW (amindis gaumjobesebuli kvleva). aRniSnuli meTodologiis gamoyeneba saSualebas izleva, rom realur droSi ganxorcieldes wamyvani qveynebis erT-erTi saprognozo centris mier ukve danergili globaluri modelis (GFS) amoxsnis Sedegebis gadaTvla SemosazRvruli arisaTvis adgilobrivi fizikur-geografiuli parametrebisa da rigi mezo- da mikromasTaburi atmosferuli procesebis gaTvaliswinebiT. Sesrulebuli iqna EWRF EMS (ARW) modelis dinamikur birTvSi | | | |

rigi programuli failebis redaqtireba da 5-km-iani amoxsnis mqone `qvearis Cadgma~ ori sxvadasxva meTodiT.

orografiul TaviseburebebTan modelis adaptirebis mizniT Tavdapirvelad Teoriulad iqna gamokvleuli meteorologiuri sidideebis, “nela cvalebadi“ nakadis prognozuri sqemebis integraluri Tvisebebi reliefis gavlenis gaTvaliswinebiT. ganxorcielda **WRF ARW** modelis qveareze gadaTvla gazrdili (5 km) garCevsunarianobiT:

modelis `ZiriTad areSi~ qvearis Cadgmis mizniT ganxorcielda modelis programuli uzrunvelyofis kompilireba da saTanado failebis redaqtireba da 5-km-iani amoxsnis mqone `qvearis Cadgma~ sxvadasxva meTodebiT

ganxorcielda modelis Tvlis Sedegebis (**outputs**) optimizireba xmeleTis zedapirze qvemoT mdebare wnevaTa doneebisaTvis interpolirebis meTodiT, rac ganxorcielda modelis Sesasvleli failis (e.w. **namelist.input**) redaqtirebis gziT. ganxorcielda modelis amoqmedeba moZravi qvearis SesaZleblobebiT.

WRF ARW modelis `ZiriTad areSi~ dasaSvebia ori tipis moZravi qvearis Cadgma. aRniSnuli amocanis Sesasruleblad ganxorcielda modelis dinamikuri birTvis (**WRFv3**) konfigurireba da kompilireba orive SemTxvevisaTvis cal-calke. garda amisa, TiToeuli SemTxvevisaTvis ganxorcielda Sesasvlel failSi (e.w. **namelist.input**) specialuri miTiTebebis Camateba. dainerga modelis Tvlis Semdgomi samuSaoebis Sesasrulebeli (**Post-Processing**) programebi da Sedegebis vizualizaciis saSualebebi.

Temis farlebSi ganxorcielda monacemTa 4-ganzomilebiani asimilaciis teqnikiis gamoyeneba da **WRFv3(ARW)** modelis variaciuli asimilaciis kodis danergva (**WRF-Var**).

sawyisi parametrebis ukeT gansazRvrisa da e.w. fonuri cdomilebis (**first guess**) gamovlinebis mizniT moxda modelis kodis dainstalireba da komlilireba specialuri qveprogramebis **WRFDA, OBSGRID** gamoyenebis SesaZleblobiT.

ganxorcielda **WRFv3 (ARW)** modelis srulyofili versiis (variaciuli asimilaciis birTvis gamoyenebiT) Tvlaze gaSveba. amisaTvis Catarda Semdegi samuSaoebi: dakvirvebis monacemebis momzadeba **WRFv3 (ARW)** modelisTvis Tavsebad formatSi. modelis Tvlaze gaSveba adgilobrivi meteomonacemebis gaTvaliswinebiT.

Catarebuli eqsperimentebis analizi. Catarebuli eqsperimentebis Semajamebeli analizis Catarebis mizniT ganxorcielda **modelis gamarTlebadobis Sesafasebeli programuli birTvis (METv2.0)** danergva.

| | | | |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------|
| 2 | <p>kavkasionis myinvarebze klimatis cvlilebis zemoqmedebis</p> <p>Sefaseba distanciuri dakvirvebis teqnologiebis gamoyenebiT (2012-2014 ww).</p> <p>dedamiwis Semswavleli mecnier-eba, hidrologia (distanciurizondireba).</p> | L | <p>larisa Sengelia</p> <p>giorgi korZaxia,</p> <p>nodar begaliSvili,</p> <p>vasil comaia,</p> <p>\Tengiz cincaZe.</p> |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------|

dasrulebuli kvleviTi samuSaos (etapis) Sedegebi (anotacia)

1. SevarCieT Tanagzavrebi, romelTagan miRebuli informacia gamosadegia myinvarebis kvlevisTvis;
2. distanciuri dakvirvebis teqnologiebis gamoyenebiT miviReT da davamuSaveT kavkasionis myinvarebis maxasiaTeblebi;
3. kvlevisTvis gamoviyeneT Google-is programuli produqtis Google Earth-is Tanamgzavrul suraTebi da sensor Aster-is Tanamgzavruli monacemebis safuZvelze generirebuli reliefis cifrul modeli (Aster DEM). miviReT myinvaris suraTebi da movaxdineT misi 3D sivrciT vizualizacia. Tanamgzavruli monacemebis damuSavebisaTvis gamoviyeneT GIS sistemebi – Google Earth, BEAM Visat da Quantum GIS Lisboa;
4. myinvarebis identifikaciisaTvis, pirveladi SedarebisaTvis gamoviyeneT GLIMS-is monacemTa bazaSi daculi myinvarebis sxvadasxva monacemebi, maT Soris myinvarebis konturebis da myinvarebis ricxviTi maxasiaTeblebi. movaxdineT GLIMS-is monacemTa bazaSi daculi konturebis generireba sensor Aster-is monacemebis safuZvelze;
5. myinvarebis konturebis validaciisaTvis visargebleT sabWoTa kavSiris droindeli topografiuli rukebiT (1:50000);
6. miRebuli Sedegebis realuri validaciisaTvis SesaZleblobebis farglebSi gamoviyeneT garemos erovnuli saagentos eqspediciebis miwispira dakvirvebebi garkveuli myinvarebisaTvis da garkveuli wlebisaTvis da gamoviyeneT myinvarebis mcodne eqspertebis gamocdileba;
7. movaxdineT distanciuri zondirebis safuZvelze miRebuli Sedegebis dawvrilebiTi Sedareba myinvarebis katalogis monacemebTan da CamovayalibeT qvemoTmoyvanili daskvnebi:
 - maqsimaluri sigrZe da farTobi mcirdeba;
 - minimaluri simaRle da firnis xazis simaRle izrdeba;
 - maqsimaluri simaRle gazomvis cdomilebis farglebSi ar icvleba.
 - ablaciis aris farTobi faqtiurad ar icvleba, radgan erTis mxriv dnobis Sedegad minimaluri simaRle izrdeba, magram izrdeba agreTve firnis xazis simaRlec;
8. gamokvleulia md.enguris – sag.xaiSis kveTSi sruli da myinvaruli Camonadenis dinamika. gamoyenebulia wyalSemkrebze arsebuli hidrometeorologiuri qselis dakvirvebis monacemebi. Camonadenis formirebis empiriul-statistikuri da wyalbalansuri modelebis safuZvelze Sesrulebulia sruli da myinvaruli Camonadenis savaraudo sidideTa Sefasebebi 2015 da 2100 wlebisaTvis. myinvaruli Camonadenis mniSvnelobebi Sefasda, aseve, myinvarebis zedapiridan modnobis sididis empiriuli formulebis safuZvelze. ori gansxvavebuli meTodiT miRebuli mniSvnelobebi axlos arian erTmaneTTan, rac miTitebs kvlevis Sedegebis saimedobaze.
9. Catarebuli kvlevebis safuZvelze miRebuli Sedegebi naTlad miuTiteben kavkasiis, kerZod saqarTvelos myinvarebze klimatis regionaluri cvlilebis zemoqmedebas, rac gamoixateba daTbobis Sedegad myinvarebis ukandaxevaSi;
10. miRebuli Sedegebi SeiZleba gamoyenebuli iqnas myinvarebis Camonadenis gansazRvrisaTvis;
11. miRebuli Sedegebi metyveleben distanciuri zondirebis gamoyenebiT myinvarebis kvlevis efeqturobaze.

| | | | |
|---|--------------------------------------------------------------------------------------------------|----------------|-------------|
| 3 | klimatis cvlilebasTan saadaptacio proeqtis momzadeba mzis energiis gamoyenebiT gare kaxeTSi sar- | b. beritaSvili | n. kapanaZe |
|---|--------------------------------------------------------------------------------------------------|----------------|-------------|

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------|
| | wyavi sistemis reabilitaciisTvis (2012-2014 ww) | | |
| dasrulebuli kvleviTisamuSaos (etapis) Sedegebi (anotacia) | | | |
| <p>dedofliswyaros municipalitetis teritoriaze arsebuli hidrometeorologiuri monacemebis safuZvelze gaanalizebuli klimaturi pirobebisa da maTi 2100 wlamde mosalodneli cvlilebis gaTvaliswinebiT dasabuTebulia alaznis velze helioenergetikuli danadgaris agebis perspeqtuloba.</p> <p>damuSavebulia saadaptacio-saproeqto winadadeba `dedofliswyaros municipalitetis agrosamrewvelo kompleqsis reabilitacia mzis mZlavri eleqtrosadgurebis bazaze sairigacio sistemis aRdgeniT~, romelic miznad isaxavs gaudabnoebis safrTxis winaSe mdgari dedofliswyaros raionis agrosamrewvelo kompleqsis reabilitacias mzis eleqtrosadguris bazaze moqmedi sarwyavi sistemis aRdgena-gafarToebis gziT.</p> <p>proeqtis Sesruleba xels Seuwyobs saqarTvelos sasursaTo usafrTxoebis uzrunvelyofas, miwis degradaciis SeCerebas, mosaxleobis socialur-ekonomikuri pirobebis gaumjobesebasa da turistuli infrastruqturis ganvitarabas.</p> | | | |
| 4 | saqarTvelos regionaluri mikroci- kulaciuri procesebis dinamikis Seswavla atmosferuli procesebis arsebuli modelebis gaumjobesebis mizniT (2014-16). dedamiwis Semswavleli mecniereba. atmosferos fizika | m.tatiSvili | z.xvedeliZe g. gelaZe d.demetraSvili i.samxaraZe n.zotikiSvili |
| dasrulebuli kvleviTisamuSaos (etapis) Sedegebi (anotacia) | | | |
| <p>2014w. ganxorcielda mikroci- kulaciuri procesis Tvis ebis Seswavla araerTgvarovan reliefze; procesebis Tvis mnisvnelovani parametrebis dadgena. atmosferos mezomasStaburi sasazRvro fenis (amsf) ricxviTi modelis safuZvelze SeviswavleT atmosferos turbulenturi reJimis gavlena Rrubel- nislformirebis procesze. modelirebuli gvaqvs RrubelTa da nislis ansambli, maTi urTierTtransformaciis procesi..</p> <p>detalurada gvaqvs Seswavlili iseTi lokaluri qarebi, rogoricaa fionebi. mocemuli gvaqvs maTi axleburis klasifikacia, kerZod, mSraladiabaturi, notioadiabaturi da notio-mSraladiabaturi fionebis saxiT. dasmulis gvaqvs brtyeli 2-ganzomilebiani amsf-is amocana fionis Sesaxeb. amocana ricxviTi realizaciis stadiazea.</p> | | | |

* saxelmwifo grantiT dafinansebuli
samecniero-kvleviT proeqtebi

| # | proeqtis dasaxeleba mecnierebis dargisa da samecniero mimarTulebis miTiTebiT | dამფინანსებელი ორგანიზაცია | proeqtis xელმზრვანელი | proeqtis Semsruleblebi |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Tanamgzavruli distanciuri zondirebis safuZvelze saqarTvelos myinvarebis kvleva. dedamiwis Semswavleli mecniereba, hidrologia (distanciuri zondireba), granti #FR/586/9-110/13. | სსიპ `SoTa rusTavelis erovnuli samecniero ფონდი~ | Iarisa Sengelia | giorgi korZaxia, vasil comaia, genadi Tvauri (iv. java-xiSvilis saxelobis Tbilisis saxelmwifo universitetis m. nodias geofizikis institutis ufrosi mecn. Tan). |
| <p>proeqtis I etapis Sedegebi (ანოტაცია)</p> <p>ბოლო 50 წლის განმავლობაში არმოსავლეთ საკარტველოს ყველა მყინვარის როგორც მთლიანი მყინვარის, ასევე რია ნაწილის</p> <ul style="list-style-type: none"> • მაქსიმალური სიგრძე და ფართობი მცირდება; • მინიმალური სიმაღლე და ფირნის ხაზის სიმაღლე იზრდება; • მაქსიმალური სიმაღლე გავრცელების ცენტრების წარმოადგენს არ იცვლება. • აბლაციის არის ფართობი ფაქტიურად არ იცვლება, რადგან ერთი მხრივ დნობის სიღრმე მინიმალური სიმაღლე იზრდება, მაგრამ იზრდება აგრეთვე ფირნის ხაზის სიმაღლეც. <p>კატარები კვლევების საფუძველზე მიჩნეულია, რომ სიმაღლეები ნაწილად მიუთითებენ არმოსავლეთ საკარტველოს მყინვარებზე კლიმატის რეგიონალური ცვლილების ზემოქმედებას, კერძოდ, დატბობის სიღრმე მყინვარების უკანდახვას.</p> <p>ამავდროულად უნდა აღინიშნოს, რომ მოყვანილია სიმაღლეები მეთველები, რომლებიც დისტანციური მონიტორინგის გამოყენებით არმოსავლეთ საკარტველოს მყინვარების კვლევაშია დაგეგმული.</p> | | | | |

* publikaciebi:

a) saqarTveloSi

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnaliskrebulis dasaxeleba | Jurnaliskrebulis nomeri | gamocemis adgili, gamocemloba | gverdebis radenoba |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------|
| 1 | m.tatiSvili, m.melaZe, i.mkurnaliZe, m.kaiSauri | Tanamgzavruli informaciis gamoyeneba klimatis cvlilebis SerbilebisTvis agrometyeveobaSi | saqarTvelos soflis meurneobis akademi. saerT. konf.masalebi “kliatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganviTarebaZe” | Tbilisi, saqarTvelo | 235-237 |
| <p>statiisi ganxilulia Tanamgzavridan miRebuli produqtis normalizebuli vegetაციური ინდექსის გამოყენება აგრომეთვეობაში კლიმატის ცვლილების ნეგატიური შედეგების Serbileბისათვის. ეს პარამეტრი ფართოდ გამოიყენება ტყის დეგრადაციის და გაუტყეების ამოცანებში. განხილულია ამ პროდუქტის მიხედვით და გამოტვლის გზები.</p> | | | | | |
| 2 | m.tatiSvili, i.mkurnaliZe, r.mesxia | setyvuri procesebi saqarTvelos teritoriaze | saqarTvelos soflis meurneobis akademi. saerT. konf.masalebi “kliatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganviTarebaZe” | Tbilisi, saqarTvelo | 238-240 |
| <p>გლობალური კლიმატის ტანამედროვე ცვლილების ფონზე გაიზარდა სეტყვური პროცესების ინტენსივობა როგორც საკარტველოში, ასევე მსოფლიოს სხვადასხვა რეგიონებში. საკარტველოს ტერიტორიაზე სეტყვიანი პროცესების სივრცულ-დროითი განაწილების დასადგენად სეგროვია და სისტემატიზებულია სეტყვიანი დრეტა წლიური რიცხვის 1960-2006 წწ-ის, 84 მეტეოსადგურის მონაცემები. შემდეგ გამოიწვალა სეტყვიანი დრეტა რიცხვის (სდრ) ზრითადი სტატისტიკური მაქსიმუმები – დავირების პერიოდი, შემტყვევატა რიცხვი ამ პერიოდის განმავლობაში, მაქსიმალური, მინიმალური და საშუალო მნიშვნელობები, სტანდარტული გადახრები და ვარიაციის კოეფიციენტები.</p> | | | | | |
| 3 | m.tatiSvili, i.mkurnaliZe | საქართველოს ჰიდრომეტეოლოგიური პროცესები საკარტველოს ტერიტორიაზე | აქალი სერია 6(85) | ვახუშტი ბაგრატიონის გეოგრაფიის ინსტიტუტის შრომატაკრებული | 113-118 |
| <p>გლობალური კლიმატის ტანამედროვე ცვლილებამ და არასწორმა ანტიტროპიკულმა მართვამ გამოიწვია ბუნებრივი კატასტროფების გამრავლება. ეს პრობლემა განსაკუთრებით მწვავე საკარტველოსთვისაა, სადაც ბუნებრივი ჰიდრომეტეოლოგიური კატასტროფები განპირობებულია რელიეფურ-კლიმატური მდგომარეობით. ნაშრომში განხილულია შემდეგი საქართველოს ჰიდრომეტეოლოგიური მოვლენები: სეტყვა, ელვები და უაღრესად საკარტველოს ტერიტორიაზე. ჰიდრომეტეოლოგიური მონაცემების გამოყენებით შესრულდა სტატისტიკური ანალიზი.</p> | | | | | |

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| 4 | zurab xvedeliZe | atmosferuli procesebis aram-dgradobis energiis gansaz-Rvra lokaluri reliefis gavlenis gaTvaliswinebiT. | 1(11) | gesJ”fizika” 2014w. | 30-38 |
| <p>aramdgradobis energia gansazRvravs atmosferoSi haeris konveqciuri moZraobas, mis vertikalur siCqares. aseTi moZraoba ki ganapirobebs setyvis Rrublebis warmoSobas da masSi setyvis marcvelbis moZraobis dinamikas. SemoTavazebulia vertikaluri siCqaris gansazRvris maTematiluri modeli eg. w.”samkuTxeduri poligonis”meTodiT. aRmoCnda rom reliefis gavleniT izrdeba miwispira fenaSi vertikaluri siCqare da TiTqmis tolia horizontalur mimarTulebiT arsebuli siCqarisa. Aam meTodiT gansazRvruli aramdgradobis energia karg TanxmobaSia aerologiuri monacemebiT gansazRvrul energiis sididesTan. miRebuli daskvnebi iZleva safuZvels warmodgenili meTodi gamoyenebuli iqnas praqtikaSi. maTematikuri midgomiT dazustebulia hemgolcis tipis grinis gavlenis funqciebiT amoxsna reliafis gavlenis gaTvaliswinebis SemTxvevaSi(aseTi midgoma ganxorcielebulia pirvelas). moxdenilia haeris nakadis horizontaluri adveqciis gaangariSeba sxvadasxva geografiuli kofiguraciis reliefis gavlenis gaTvaliswinebiT.aRmoCnda,rom nakadis horizontaluri gadatana mkveTrad aris damokidebuli reliefis meridianur da pararelir gavrcobaze. reliefis gavlena asustebs nakadis horizontalur gadatanas manZilis meoTxe xarisxis ukuproporciulad da zrdis aRmaval nakadis siCqares. gaTvlebi Sesrulda saCxerisa da goris regionebezze.miRebuli Sedegebi gaRvaliswinebuli unda iyos lokaluri amindis prognozis dazustebsaSi.</p> | | | | | |
| 5 | demetraSvili d., korZaZe a. | Development of Black Sea Regional forecasting system for its easternmost part with inclusion of oil spill transport forecast. saqarTvelos mecnierebaTa erovnuli akademiis moambe | #4 | Tbilisi | 8 |
| <p>Savi zRvis aRmosavleT nawilSi dinamikuri da navTobis laqis gadatanis procesebis prognozis mizniT SemuSavebulia Savi zRvis mdgomareobis regionuli prognozuli sistema. Pprognozuli sistemis mTavari komponentebia okeanis hidroTermodinamikis gantolebaTa srul sistemaze dafuZnebuli iv. javaxiSvilis sax. Tbilisis saxelmwifo universitetis m. Nnodias geofizikis institutis Savi zRvis dinamikis 3-ganzomilebiani baroklinuri modeli da arakonservatiuli minarevis arastacionarul adveqcia-difuziis gantolebaze dafuZnebuli navTobis laqis gadatanis 2-ganzomilebiani modeli. navTobis laqis gadatanis modeli iyenebs zRvis dinamikis regionuli modelidan miRebul arastacionaruli zedapiruli dinebis vels. 1 km garCevisunarianobis mqone Savi zRvis dinamikis regionuli modeli Cadgmulia zRvis hidrofizikis institutis (q. sevastopoli) 5 km garCevisunarianobis mqone Savi zRvis dinamikis didmasStabian modelSi. warmodgenilia cirkulaciisa da navTobiT daWuWyianebis gavrcelebis prognozis Sedegebi hipoTeturi avariis SemTxvevebSi.</p> | | | | | |
| 6 | korZaZe a., demetraSvili d. | Simulation and forecast of oil spill transport processes in the Georgian Black Sea | v. 17b | Tbilisi | 12 |

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| | | coastal zone using the regional forecasting system J. Georgian Geophys. Soc. | | | |
| <p>statis Savi zRvis saqarTvelos sanapiro zolSi navTobis laqis gadatanis modelirebisa da prognozis mizniT navTobis laqis gavrcelbis 2-ganzomilebiani modeli calkeuli modulis saxiT CarTulia Savi zRvis mdgomareobis regionul prognozul sistemaSi. Mmodeli dafuZnebulia arakonservatiuli adveqcia-difuziis gantolebis amoxsnaze gaxleCis meTodis gamoyenebiT. ricxviTma eqsperimentebma aCvena adveqciisa da turbulenturi difuziis roli navTobis daWuWyianebis gavrcelbis TaviseburebebSi.</p> | | | | | |
| 7 | b.beritaSvili n.kapanaZe T.cincaZe | aRmosavleT saqarTveloSi naleqTa xelovnuri gazrdis samuSaoTa aRdgenis sakiTxisaTvis | geofizikis aqtualuri problemebi~. geofizikis institutis samecniero konferenciis Sromebi | Tbilisi geofizikis instituti | 103-107 |
| <p>ganxilulia aRmosavleT saqarTveloSi naleqTa xelovnuri gazrdis (nxg) samuSaoTa ganviTarebis istoria. aRniSnulia am samuSaoTaA gaSlis saqmeSi 1977 wels ioris poligonis organizaciis gadamwyveti roli. moyvanilia 1979-1990 wlebSi hidrometeorologiis institutis xelmZRvanelobiT warmoebul samuSaoTa efeqturobis monacemebi. naCvenebia efeqturobis amaRlebis Sesazlebloba md. liaxvze, aragvze, xramze, algeTze, alazansa da iorze arsebuli wyalsacavebisa da faravis tvis auzebSi, agreTve vake raionebSi setyvasawinaaRmdego raketebis, aviaciisa da miwispira saaerozolo generatorebis gamoyenebiT nxg samuSaoTaA gaSlis xarje.</p> | | | | | |
| 8 | k.TavarTqilaZe, n.begaliSvili, T.cincaZe | naleqebis horizontaluri gavrcobadoba da misi sezonuri cvlileba saqarTvelos teqniki universitetis hidrometeorologiis institutis SromaTa krabuli | t.120, 2014, | Tbilisi, hidrometeorologiis instituti | gv.5-9 |
| <p>Seswavlilia saqarTveloSi atmosferuli naleqebis "gavrcobadobis" reJimuli struqtura. dakvirvebis 28 punktis 1936-2009 wlebis Tviuri jamebis monacemebiT miRebulia formula, romelic akavSirebs teritoriis nebismier ortilSi naleqebis erTdroulad mosvlis albaTobas maT Soris manZiITan. dadgebilia naleqebis gavrcobadobis sezonuri cvlileba.</p> | | | | | |
| 9 | g.gelaZe | Classification of Foehns and their numerical modelling. Reports of enlarged session of the seminar of I. Vekua institute of applied mathematics | t. 28 2014 w. | Tbilisi, Tsu gamomcemloba | 4 |
| <p>detaluradaa Seswavlili fionebis genezisi. mocemuli gvaqvs maTi klasifikacia mSraladiabatur, notioadiabatur da</p> | | | | | |

notio-mSraladiabatur fionebad. brtyeli, 2-ganzomilebiani(x-z sibrtye) atmosferos mezomasStaburi sasazRvro fenis farglebSi dasmuli gvaqvs fionis ricxviTi modelirebis amocana; igi kompiuteruli realizaciis stadiazea.

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| 10 | samxaraZe i, xvedeliZe z, daviTaSvili T, tatiSvili m, zotikiSvili n. | zogieTi lokaluri meteorologiuri procesebis maTematikuri modelireba saqarTvelos calkeuli regionevisaTvis saqarTvelos teqnikiuri universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.10-15. |
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hidroTermodinamikuri meTodebis daxmarebiT Seiswavleba susti aero-hidro dinebebis Taviseburebebi mcire daxrilobis mqone arxebSi. naCvenebia ,rom dinebis siCqare da simZlavre ukuproporciulia arxis reliefis maxasiaTeбели sididis kvadratisa. dedamiwis atmosferoSi, xSirad daikvirveba, mcire teritoriaze ganviTarebuli araperioduli araordinaluri atmosferuli procesebi. aRniSnul movlenebs miekuTvneba: qarborbala; mikroreliefuri adgilobrivi qarebi; atmosferos miwispira fenaSi warmoSobili sxvadasxva bunebis aRmavali dinebebi da lokalur regionze TiTqmis mudmivad arsebuli geofizikuri „fenomenebi”.statiaSi hidroTermodinamikis kanonebis safuZvelze moyvanilia aRniSnuli movlenebis axsna . dRemde aseTi midgoma da gakeTebuli daskvnebi cnobili ar aris. agreTve damtkicebul iqna, rom qarib grigalur velSi wneva izrdeba reliefis simaRlis proporciulad dim kuTxis zrdiT, romelsac nakadis brunvis RerZi adgens vertikalur mimarTulebasTan. miRebul Sedegebs aqvT, rogorc Teoriuli, aseve praqtikuli mniSvneloba.

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| 11 | gelaZe g. S., begaliSvili n. a., begaliSvili n. n. | fionebis klasifikaciisa da ricxviTi modelirebis Sesaxeb saqarTvelos teqnikiuri universitetis hidrometeorologiis institutis SromaTa krebuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.16-21 |
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detaluradaa gamokvleuli fionebis genezisi. isini klasificirebulia mSraladiabatur, notioadiabatur da notio-mSraladiabatur fionebad. dasmulia amocana fionebis ricxviTi modelirebis Sesaxeb atmosferos brtyeli, organzomilebiani mezomasStaburi sasazRvro fenis farglebSi. amocana ricxviTi realizaciis stadiazea. viRebulia pirveli dadebiTi rezultatebi.

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| 11 | i.mkurnaliZe, m.tatiSvili | eIWequri procesebis sivrculdroiTi variaciebi kaxeTis regionSi saqarTvelos teqnikiuri universitetis hidrometeorologiis institutis SromaTa krabuli | t.120 | Tbilisi, hidrometeorologiis instituti | gv.22-24 |
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statiaSi ganxilulia eIWequri procesebi kaxeTis regionSi moqmedi meteosadgurebis dakvirvebis monacemebis gamoyenebiT. statistikuri maxasiaTeblebis saSualebiT gamokvleulia regionis eIWequri aqtivoba.

b) ucxoeTSi

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnalis/krebulis dasaxeleba | Jurnalis/krebulis nomeri | gamoemis adgili, gamomcemloba | gverdebis raodenoba |
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| 1 | Marika Tatishvili | Energy transformation in clouds according quantum principles. International Scientific Journal. Journal of Environmental Science | vol 3. 2014. ISBN-13: 978-1499721980 ISBN -10: 1499721986 | Vienna, Austria | pp. 7-9. |
| <p>The interaction of light (photon) and cloud particles according main quantum assumption that system internal energy is composed by bound microparticles (cluster) under certain conditions can obtain allowed discrete significances has been discussed in the article. The objective is to calculate the transition probability from one state into another caused by inner forces or any internal processes. The cluster may be presented as multipole system. The multipole is the system composed by couple opposite charges that have definite symmetry type. The simplest is the dipole. If the transition is forbidden in dipole approach it may happen in higher approaches – quadrupole (electric) or magnetic dipole. Their probability is approximately 10^6 times less than dipole. To search out transition probability of cluster from basic state into exciting or virtual one interacting with electromagnetic field the identification of Einstein factors have to be needed.</p> <p>The some peculiarities of microstructure of cloud formations have been discussed using quantum disperse forces or Van-Der-Vaals forces that are typical for water particles. To obtain the expression for interaction potential the wave functions of basic and exited states of clusters and dispersion matrix have been introduced describing by virtual photon. It has been turned out that virtual photon interaction causes potential holes and barriers that are decreased by height and width. The isolated long wave quants may be the radiation that is generated throughout observed microphysical processes.</p> | | | | | |
| 2 | M.Tatishvili, E.Elizbarashvili, R.Meskhia, Sh.Elizbarashvili | Climate change assessment in Georgia. International Scientific Journal. Journal of Environmental | vol 3. 2014 ISBN-13: 978-1499721980 ISBN -10: 1499721986 | Vienna, Austria | pp. 10-14. |

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| | | Science. | | | |
| <p>Based on the monthly mean precipitation and temperature gridded data set it was ascertained that temperature and precipitation change have heterogeneous nature for Georgian territory. The warming and cooling centers have been detected as in west as in east parts of Georgia. Warming and cooling regions and centers have been maintained in some months and have seasonal character. For whole Georgian climatic system the multiyear variation of mean temperature doesn't occur. The highest temperature background has been fixed on 1966 and was equal to 11.8°C that corresponds to the period of solar maximum activity. After 2002 Georgian climatic system mean temperature doesn't exceed 10.5°C. The precipitation change nature has heterogeneous nature too and was maintained in warm and cool periods of year. The highest precipitation level has been fixed on 1963 that corresponds to the atmosphere meridian circulation period. The lowest level has been fixed on 2000 and was 830mm.</p> | | | | | |
| 3 | korZaZe a., de- metraSvili d. | Прогноз циркуляционных процессов и распространения нефтяного загряз- нения в восточ- ной части Черно- го моря на основе региональной прогностической системы. Морской гидро- физический журнал | #4 | Севастополь | 16 |
| <p>Savi zRvis aRmosavleT nawilis dinamikuri mdgomareobis moklevadiani prognozisa sistema (Txevadi saz-Rvari dasavleTis mxridan gadis a. Gg. 39.08⁰ –ze) gafarToebulia sistemaSi navTobis gavrcelebis modelis CarTvis gziT. prognozuli sistema dinamikuri parametrebis – dinebis, temperaturisa da marilianobis 3-ganzomilebiani velebis prognozisa garda, SesaZleblobas izleva saWiroebis SemTxvevaSi operatiulad gavTvaloT navTobiT daWuWyianebebis areebi da koncentraciebi Savi zRvis saqarTvelos seqtorSi 1 km garCevisunaruanobiT da 3 dRis winaswarobiT. ricxviTma eqsperimentebma gafarToebuli regionuli sistemis safuZvelze aCvena dinamikuri procesebis mniSvnelovani roli daWuWyianebebis sivrciT-droiT ganawilebaSi.</p> | | | | | |
| 4 | D. Kvaratskhelia , D. Demetrashvili | Numerical inves- tigation of the mixed layer seasonal peculiarities for the | International Symposium on Stability, Vibration and Control of Machines and | Belgrade | 8 |

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| | | Black Sea | Structures. SVCS. | | |
| <p>zRvisa da okeanis turbulenturi Serevis fenis Termuli reJimis Tavisebureba ara mxolod gansazRvravs zRvisa da atmosferos urTierTqmedebis procesebis da klimatis formirebas, aramed igi mniSvnelovan gavlenas axdens zRvis cocxali organizmebis ganviTarebaze. igive unda iTqvas Savi zRvis turbulenturi Serevis fenazec. kvlevis mizania Sefasdes siTbos gadatanis Tavisebureba horizontze Savi zRvis turbulenturi Serevis fenaSi, aseve ganisazRvros fenis sisqe da misi cvalebadoba zRvis zedapirze ganviTarebuli atmosferuli procesebis cvalebadobis Sesabamisad. Savi zRvis dinamikis 3-ganzomilebiani modelis gamoyenebiT Catarebulia ricxviTi eqsperimentebi, romlis Sedegebmac aCvena, rom temperaturuli velis ganawileba horizontze Savi zRvis turbulentur fenaSi dakavSirebulia Termoxalinuri zemoqmedebis cvalebadobaze, xolo fenis sisqes gansazRvravs atmosferuli cirkulaciuri procesebi. Tbil sezonSi aprilidan iwyeba turbulenturi Serevis fenis SeTxeleba, xolo ivlisis TveSi igi saerTod ar daikvirveba.</p> | | | | | |

* samecniero forumebis muSaobaSi monawileoba

a) saqarTveloSi

| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | m.tatiSvili, m.melaZe, i.mkurnaliZe, m.kaiSauri | Tanamgzavruli informaciis gamoyeneba klimatis cvlilebis SerbilibisTvis agrometyeveobaSi | 2-4 oqtomberi. saqarTvelos soflis meurneobis akademia. saerT. konf.masalebi “kliatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganviTarebaze” Tbilisi. 2014 |
| <p>statiaSi ganxilulia Tanamgzavridan miRebuli produqtis normalizebuli vegetaciuri indeqsis gamoyeneba agrometyeveobaSi klimatis cvlilebis negatiuri Sedegebis SerbilibisaTvis. es parametri farTod gamoiyeneba tyis degradaciis da gautyeurebis amocanebSi. ganxilulia am produqtis miRebis da gamoTvlis gzebi.</p> | | | |
| 2 | m.tatiSvili i.mkurnaliZe, r.mesxia | setyvuri procesebi saqarTvelos teritoriaze | 2-4 oqtomberi. saqarTvelos soflis meurneobis akademia. saerT. konf.masalebi “kliatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganviTarebaze” |
| <p>globaluri klimatis Tanamedrove cvlilebis fonze gaizarda setyvuri procesebis intesivoba rogorc saqarTveloSi,</p> | | | |

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| <p>aseve msofilios sxvadasxva regionebsi. saqarTvelos teritoriaze setyviani procesebis sivrcul-droiTi ganawilebis dasadgenad Segrovilia da sistematizirebulia setyvian dReTa wliuri ricxvis 1960-2006 ww-is, 84 meteoadguris monacemebi. Semdeg gamoiTvala setyvian dReTa ricxvis (sdr) ZiriTadi statistikuri maxasiaTeblebi – dakvirvebis periodi, SemTxvevaTa ricxvi am periodis ganmavlobaSi, maqsimaluri, minimaluri da saSualo mniSvnelobebi, standartuli gadaxrebi da variaciis koeficientebi.</p> | | | |
| 3 | m.tatiSvili, i.mkurnaliZe | saSiSi hidrometeorologiuri movlenebi saqarTvelos teritoriaze | 12-13 ivnisi. v.bagrations sax. geografiis instituti |
| <p>globaluri klimatis Tanamedrove cvlilebam da arasworma anTropogenulma marTvam gamoiwvia bunebrivi katastrofebis gamwvaveba. es problema gansakuTrebiT mwvave saqarTvelosTvisaa, sadac bunebrivi hidrometeorologiuri katastrofebi ganpirobebulia reliefur-klimaturi mdgomareobiT. naSromSi ganxilulia Semdegi saSiSi hidrometeorologiuri movlenebi: setyva, elWeqi da wyaldidoba saqarTvelos teritoriaze. hidrometeorologiuri monacemebis gamoyenebiT Sesrulda statistikuri analizi.</p> | | | |
| 4 | m.tatiSvili, i.mkurnaliZe | elWeqiani da setyvuri procesebi saqarTvelos teritoriaze | Tbilisi saerTaSoriso eleqtronuli konferencia “geografia da garemos Tanamedrove problemebi” |
| <p>naSromSi Seswavlia el-Wequri da setyvuri provesebis variaciebi saqarTvelos teritoriaze moqmedi meteoadgurebis monacemebis gamoyenebiT. gamoyofilia klimaturi zonebi setyva da el-Wequri procesebis mixedviT. am procesebis maxasiaTeblebis trendebis mixedviT dadgenilia maTi cvalebadobis xasiaTi.</p> | | | |
| 5 | Кордзадзе А. А., Андгуладзе Ш. Н., Деметрашвили Д. И. | Прогноз распространения нефтяного пятна в восточном Черномории | 15-21 Сентября. Ресурсовоспроизводящие, малоотходные и природоохранные технологии освоения недр. Грузинский технический университете. |
| <p>imis gamo, rom uaxloes wlebSi mosalodnelia Sav zRvaze navTobgadazidvebis mniSvnelovani zrda, iqmneba mnivnelovani potenciuri safrTxe zRvis ekosistemis kidev ufro dabinZurebisa navTobproduqtebiT. navTobiT daWuWyianebis prognozis saimedo meTodebis SemuSaveba Tanamedrove gamoyenebiTi okeanografiis erTerTi mniSvnelovani amocanaa. warmodgenil naSromSi navTobis daWuWyianebis gavrclebis modeli CarTulia Savi zRvis regionul prognozul sistemaSi, rogorc calkeuli moduli, romlis saSualebiTac SeiZleba operatiulad gavTvaloT navTobis koncentraciebisa da daWuWyianebis zonebis gavrclebis 3 dRiani prognozi zRvis ganapira aRmosavleT nawilSi 1 km sivrciTi garCevisunarianobiT. navTobis gavrclebis prognozis gaTvლისათვის სა-ვიროა შესაბამის სტვლელ პროგრამაში, რომელიც SemuSavebulia algoriTMul enaze “fortrani”, garedan SeviyvanoT wyaros mdebareobis koordinatebi, daRvრილ navTobის რადენობა და daRvრის xანგრZლივობა. zRვის zედაპირული დინების ველი, რომელიც სავიროა დაWuWyianebის პროგნოზის გაTvლისათვის, მიიReბა პროგნოზული სისტემის ჰიდროდინამიკური ბლოკიდან.</p> | | | |
| 6 | b.beritaSvili n.kapanaZe | aRmosavleT saqarTveloSi naleq-Ta xelovnuri gazrdis samuSaoTa | Tbilisi. |

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| | T.cincaZe | aRdgenis sakiTxisaTvis | geofizikis instituti |
| <p>ganxilulia aRmosavleT saqarTveloSi naleqTa xelovnuri gazrdis (nxg) samuSaoTa ganviTarebis istoria. aRniS-nulia am samuSaoTaA gaSlis saqmeSi 1977 wels ioris poligonis organizaciis gadamwyveti roli. moyvanilia 1979-1990 wlebSi hidrometeorologiis institutis xelmZRvanelobiT warmoebul samuSaoTa efeqturobis monace-mebi. naCvenebia efeqturobis amaRlebis SesaZlebloba md. liaxvze, aragvze, xramze, algeTze, alazansa da ior-ze arsebuli wyalsacavebisa da faravnis tbis auzebSi, agreTve vake raonebSi setyvasawinaaRmdego raketebis, aviaciisa da miwispira saaerozolo generatorebis gamoyenebiT nxg samuSaoTaA gaSlis xarjze.</p> | | | |
| 7 | g.gelaZe, m.TevdoraZe | Some aspects of numerical modelling of a mesoscale boundary layer of atmosphere | 8-12 seqtemberi, baTumi saqar-Tvelos maTematikosTa kavSiris yovelwliuri saerTaSoriso konfe-rencia |
| <p>Cvens mier damuSavebuli 2-ganzomilebiani atmosferos mezomasStaburi sasazRvro fenis (amsf) ricxviTi modelis safuZvelze Sesrulebulia Semdegi amocanebi:</p> <p>Sefasebulia horizontaluri turbulentobis roli notio procesebis (Rrubeli,nisli) ansamblis formirebaSi; imitirebulia maTi urTierTtransformacia.</p> <p>gamokvleulia temperaturuli inversiebis roli Rrubel-nislwarmoqmnsa da amsf-is dabinZurebaSi.SemoTavaze-bulia fionebis axali klasifikacia mSraladiabatur, notioadiabatur da notio-mSraladiabatur fionebad. mocemulia fionebis ricxviTi modelirebis mcdeloba Cveni modelis farglebSi.</p> | | | |

b) ucxoeTSi

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| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
| 1 | M.Tatishvili | Energy transformation in clouds according quantum principles | May, Paris, France. International Conference on Environment and Renewable Energy |
| <p>The interaction of light (photon) and cloud particles according main quantum assumption that system internal energy is composed by bound microparticles (cluster) under certain conditions can obtain allowed discrete significances has been discussed in the article. The objective is to calculate the transition probability from one state into another caused by inner forces or any internal processes. The cluster may be presented as multipole system. The multipole is the system composed by couple opposite charges that have definite symmetry type. The simplest is the dipole. If the transition is forbidden in dipole approach it may happen in higher approaches – quadrupole (electric) or magnetic dipole. Their probability is approximately 10^6 times less than dipole. To search out transition probability of cluster from basic state into exciting or virtual one</p> | | | |

interacting with electromagnetic field the identification of Einstein factors have to be needed.

The some peculiarities of microstructure of cloud formations have been discussed using quantum disperse forces or Van-Der-Vaals forces that are typical for water particles. To obtain the expression for interaction potential the wave functions of basic and excited states of clusters and dispersion matrix have been introduced describing by virtual photon. It has been turned out that virtual photon interaction causes potential holes and barriers that are decreased by height and width. The isolated long wave quanta may be the radiation that is generated throughout observed microphysical processes.

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| 2 | I.Sengelia | Satellite Remote Sensing Outputs of the Certain Glaciers in the Territory of East Georgia | 27-29 noemberi xurgada, egvipte |
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One of the Important indicators of regional climate change is the variations in glaciers. The glaciers play an important role in the regulation of water balance in certain regions. In the conditions of global warming they recede and degrade that is expressed in the related changes in glacier runoff. The research of glacier melting is important for studies of sea/ocean level changes that also may have a significant risk for the residents of coastal areas. The Caucasian glacial dimensions (area, volume, length) have been changed over the centuries. It is determined that during the last century the characteristics of the Georgian glaciers are steadily diminishing. This process is still underway and likely it will continue in the future. The abovementioned provided the necessity for detailed study of the glaciers in Georgia.

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| 3 | korZaZe a., D vili d.EA | demetraS- Regional forecasting system of marine state and variability of dynamical processes in the easternmost part of the Black Sea. | 27 April-2 May, Vienna, Austria EGU General assembly |
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regionuli prognozisa sistema Savi zRvis ganapira aRmosavleT nawilisaTvis, romelic SemuSavebulia Cvens mier evrokavSiris saerTaSoriso samecniero proeqtebis ARENA da ECOOP farglebSi, aris mTlianad Savi zRvis mdgomareobis diagnozisa da prognozisa Semadgeneli nawili. Ddinamikuri velebis modelirebisa da prognozisa Sedegebi 2010-2014 ww.-Si aCvenebis, rom Savi zRvis ganapira aRmosavleT nawili warmoadgens dinamiku-rad metad aqtiur regions, sadac uwyvetad mimdinareobs sxvadasxva masStabis ciklonuri da anticiklonuri grigalebis warmoaqma, evolucia da dispacia.

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| 4 | korZaZe a., D raSvili d.EA | demet- Forecast of dynamical processes and oil spill transport in the easternmost Black Sea | 16-21 November, Barcelona/Spain 2 nd International Ocean Research Conference, |
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amJamad, Savi zRvis regionuli prognozisa sistema, romelic SemuSavebulia i. javaxiSvilis sax. Tbilisis saxel-mwifo universitetis m. nodias geofizikis institutSi evrokavSiris saerTaSoriso proeqtebis farglebSi, gafarToebulia zRvis zedapirze avariulad daRvrili navTobis gavrcelbis prognozisa modulis CarTviT. Ees moduli uzrunvelyofs zRvaSi CaRvrili navTobis koncentraciebis gavtcelebis 3 dRian prognozisa 1 km garCevisunarianobiT Savi zRvis saqarTvelos sanapiro zolSi. Aamgvarad, regionuli prognozisa sistema Sedgeba hidrodinamikuri da ekologiuri blokebisagan: hidrodinamikuri bloki uzrunvelyofs dinebisa da turbulentobis velebis prognozisa, rac gamo-

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| iyeneba ekologiur blokSi da WuWyianebis koncentraciaTa gasaTvlelad. | | | |
| 5 | A. Kordzadze, D. Kvaratskhelia, D. Demetrashvili, and A. Surmava | Numerical Analysis of the Hydrological Mode in the Upper Layer of the Black Sea for Spring Season | 27 April-2 May, Vienna, Austria EGU General assembly , |
| Savi zRvis dinamikis baroklinuri modelis safuZvelze gamokvleulia Savi zRvis hidrologiuri struqturis ZiriTadi Taviseburebebi gardamavali sezonis (aprili) klimaturi pirobebisaTvis. atmosferos Termoxalinuri zemoqmedeba gaTvaliswinebulia rogorc didrixles, aseve neimanis zeda sasazRvro pirobebiT. Catarebulma ricxviTma eqsperimentebma aCvena Termoxalinuri zemoqmedebis pirveladi roli Savi zRvis cirkulaciis vertikaluri struqturis formirebaSi susti qaris pirobebSi. | | | |

bunebrivi garemos da WuWyianebis monitoringis da prognozirebis

ganyofileba

ganyofilebis gamge - liana inwkirveli, qimiis mecn. akad. doqtori

samecniero erTeulis personaluri Semadgenloba:

gunia gari – mTavari mecn. TanamSromeli

surmava aleqsandre – mTavari mecn. TanamSromeli

buaciZe nuzgari – mTavari mecn. TanamSromeli

SavliaSvili lali – mTavari mecn. TanamSromeli

nasyidaSvili nanuli – ufrosi mecn. TanamSromeli

korZaxia giorgi - ufrosi mecn. TanamSromeli

kuWava gulCina – ufrosi mecn. TanamSromeli

beglaraSvili nazibrola – ufrosi mecn. TanamSromeli

tabataZe mariami – ufrosi mecn. TanamSromeli

dvaliSvili naTela – ufrosi mecn. TanamSromeli

mdivani sofo – mecn. TanamSromeli

saqarTvelos saxelmwifo biujetis dafinansebiT 2014 wlisaTvis
dagegmili da Sesrulebuli samecniero-kvleviTis samuSaoebi

| # | gegmiT gaTvaliswinebuli da Sesrulebuli samuSaos dasaxeleba mecnierebis dargisa da samecniero mi-marTulebis miTiTebiT | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
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| 1 | <p>“aRmosavleT saqarTveloSi moqmedi cementis qarxnebis garemoze negatiuri zemoqmedebis monitoringi da Semarbile- bel RonisZiebaTa SemuSaveba”</p> <p>(2010-2014ww).</p> <p>dedamiwis Semswavleli mecnierebebi da garemo</p> | n.nasyidaSvili | <p>n.beglaraSvili, I.SavliaSvili, n.dvaliSvili,</p> <p>m.tabataZe,</p> <p>m.xatiaSvili</p> |

dasrulebuli kvleviTis samuSaos Sedegebi (anotacia)

Catarda samrewvelo obieqtების (კასპისა და რუსთავის ცემენტის ქარხნების) ტერიტორიებზე არსებული ეკოსისტემების (ატმოსფერული ჰაერი, ნიადაგი) ეკოლოგიური მონიტორინგი. ქარხნების გავის საშუალებით განისაზრვება მათი გავის გავის რაოდენობა. ნიადაგის განისაზრვა მზიმერტალი, სეფსა რეგიონის ეკოლოგიური მდგომარეობა. მიწის ნიადაგის საფუძველზე დაკვირვება ხდება ვალისებურ, რომ:

- საკარტველო ცემენტის თბობიდან წლების მიხედვით ადგილი აქვს ემისიების სატურის გავის მატებას.
- საკვლევი წლების პირველი ინტერვალი (1980-1990წწ) მატება აიხსნება თბობის გამოყენებული ტექნიკის მოწვევით.
- საკვლევი წლების მეორე ინტერვალი (1990-1998წწ) ემთხვევა კვეთის პოსტაბობის პერიოდის მდგომარეობას. პერიოდულ სევეტილი ელქტრო ტუ გავმომარება, გაურკვეველი ვადებით სეცელებული სამუშაო გრაფიკი (ცემენტის ქარხნის ნორმალური ფუნქციონირების ერთ-ერთი პირობა მისი 24 საათის სამუშაო გრაფიკი) პირდაპირ აისახება ქარხნის ენერგომომარების ზრდაზე, რაც თავის მხრივ განსაზრვავს სატურის გავის ემისიების ასე მკვეთრ ზრდას.
- კვლევის ბოლო პერიოდი (1998-2009წწ) ქართული ცემენტის თბობის შემოსილი კომპანია “ჰაიდელბერი”, რომელმაც ქარხნის გაათარა ზირული რეკონსტრუქცია და დანერგა ტანამედროვე ტექნოლოგიები. არნისნულ კმედებს უნდა გამოეწვია სატურის გავის ემისიების შემცირება, ტუმცა თბობილი კვლევი საინარმდეგო სურათს აწვებს. 2008 წლიდან ცემენტის თბობის ენერგომომარებას ცვლილებები მოხდა – ბუნებრივი აირი კანაკვლა ეროვნულმა კვანახსირმა, კვანახსირი გამოირცევა სატურის გავის ემისიის მართალი მკვლევით, რამაც განსაზრვა ცემენტის თბობიდან სატურის გავის ემისიის ზრდა.

კასპის ცემენტის ქარხნის მიმდებარე ტერიტორიაზე ნიადაგის ეკოლოგიური მდგომარეობა შემდეგია: ტყვის შემცველობა კლარკის სეადგენს 16მგ/კგ მსრალ მასაზე. მისი შემცველობა სეიზება მერეობდეს ზრვების 0.2-200მგ/კგ. სასულო რაოდენობა სეადგენს 10მგ/კგ. საკვლევი ნიადაგის ტყვის შემცველობა მერეობს 1.06-32.4 მგ/კგ ფარგლებს, ე.ი. ზოგიერთ ადგილს ტყვის შემცველობა არმატება როგორც კლარკის შემცველობას 1.5-2-ჯერ, ისე მის სასულო შემცველობას 2.5-3-ჯერ. ტუმცა უნდა არინისნოს, რომ მომთბული ტყვის შემცველობა ნიადაგის სეიზება გამოწვეული იყოს არა ცემენტის ქარხნის გამონაბოლქვით, არამედ ავტოტრანსპორტის გამონაბოლქვით.

ტუთის შემცველობა კლარკის სეადგენს 85მგ/კგ. მერეობს 10-300მგ/კგ ზრვების. სასულო რაოდენობა - 50მგ/კგ.

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| <p>sakvlev niadagebSi TuTiis Semcveloba meryeobs 75.6-1225.3mg/kg, rac 3-14-jer aRemateba klarkis raodenobas da 1.5-24.5-jer, mis saSualo Semcvelobas.</p> <p>rkinis Semcveloba klarkSi 4.20%. Cvens mier miRebul monacemebSi rkinis Semcveloba meryeobs 0.08-0.20%-is farglebSi, rac miuTiTebS imaze, rom sakvlevi niadagebis rkiniT dabinZurebas ara aqvs adgili.</p> <p>rusTavis cementis qarxnis mimdebare teritoriaze niadagebis ekologiuri mdgomareoba Semdegia: tyviis Semcveloba kazmisa da ZiriTadi saamqros mimdebare teritoriebze Seadgens 28.0-28.5mg/kg, rac 2-jer aRemateba klarksa da 2.5-jer mis saSualo normas, xolo sacxovrebeli zonis teritoriaze niadagis nimuSebSi tyviis Semcveloba Seadgens 8.5mg/kg; am teritoriaze tyviiT dabinZureba ar aRiniSneba. rac Seexeba kadmiums misi Semcveloba yvela zonaSi Seadgens 1.0mg/kg-ze, rac 7-jer aRemateba klarkis raodenobas. es miuTiTebS niadagis kadmiumiT dabinZurebaze. danarCeni mZime liTonebi ar aRemateba klarkis Semcvelobas.</p> <p>rogorc kaspis cementis qarxnis Camdinare wylebSi aseve rusTavis cementis qarxnis Camdinare wylebSi ar aRmoCnda mikrobiologiuri damabinZureblebi</p> | | | |
| 2 | samuSaos dasaxeleba | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |
| | qalaqis saavtomobilo gzebze moZraobis gantvirTvis RonisZiebebis ekologiuri efeqturobis gansazRvra q.Tbilisis dasavleTis centraluri Semosavleli gzis magaliTze. (2013-2014ww.) dedamiwis Semswavleli mecnierebebi da garemo | n.beglaraSvili | m.fifia,s.mdivani, m.xatiaSvili, a.giorgiSvili |
| dasrulebuli kvleviT samuSaos Sedegebi (anotacia) | | | |
| <p>ganxilul iqna q.Tbilisis dasavleTis centralur Semosavleli gzaze (marSal gelovanis gamziris da daviT aRmaSeneblis xeivnis gzajvaredini) moZraobis gantvirTvis RonisZieba da rekonstruqciis ekologiuri aspeqtebi. gamoTvlilia emitirebuli saTburis gazebi rekonstruqciamde da rekonstruqciis Semdeg. Sefasebulia saTburis gazebis emisiis Semcirebis da sainJinro RonisZiebebis ekologiuri efeqturoba. Catarebuli kvlevebi da miRebuli Sedegebi SesaZlebelS xdis davaskvnaT, rom:</p> <ul style="list-style-type: none"> ✓ q.Tbilisi marSal gelovanis gamziris, daviT aRmaSeneblis xeivnis da giorgi robaqiZis gamziris damakavSi-rebel gzajvaredinze gzis rekonstruqcia, kerZod gzagamtari gvirabis mSenebloba warmoadgens qmediT nabijS saavtomobilo gzebis gantvirTvis RonisZiebebis kuTxiT; ✓ kvleviT miRebuli Sedegebi migvaniSnebs avtotransportidan emitirebul saTburis gazebis maRal maCveneblze, rac amarTlebs rekonstruqciis efeqturobas. ✓ SeiZleba iTqvas, rom sakvlev gzajvaredinze gauqmebuli SuqniSnebis Sedegad Semcirebuli saTburis gazebis raodenobrivi maCveneblebi warmoadgens mcire wvlils „merebis SeTanxmebis“ dokumentiT nakisr valdebulibaTa SesrulebaSi; ✓ miviCnevT, rom dedaqalaqSi, sadac transportis wili saTburis gazebis emisiaSi 40%-iT ganisazRvreb saavtomobilo gzebis msgavsi rekonstruqcia aris qmediTi RonisZieba saTburis gazebis Semcirebis kuTxiT. ✓ miRebuli Sedegebi saSualebas iZleva damajereblad vTqvaT, rom sakvlev gzajvaredinze gzagamtaris mSenebloba warmoadgens ekologiuri efeqturobis mqone mniSvnelovan RonisZiebas avtotransportidan emitirebuli saTburis gazebis Semcirebis kuTxiT. | | | |
| | samuSaos dasaxeleba | samuSaos xelmZRvaneli | samuSaos Semsruleblebi |

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| <p>3. aRmosavleT saqarTvelos aqtiuri zemoqmedebis raionebsi garemos komponentebSi mZime liTonebis Semcvelobis gansazRvra maTi fonuri koncentraciebis dadgenis mizniT (2014-2016 w.w.) dedamiwis Semswavleli mecnierebebi da garemo</p> | <p>l.inwkirveli pasuxismgebeli Semsruleblebi: g.gunia, a.surmava, n.bu-aCiZe, l.SavliaSvili</p> | <p>n.nasyidaSvili, n.beglaraSvili, m.tabataZe, s.mdivani, g.kuWava, g.korZaxia, m.xatiaSvili, a.giorgiSvili n.dvaliSvili,</p> |
| <p>gardamavali kvleviTi samuSaos Sedegebi (anotacia)</p> | | |
| <p>SerCeulia dakvirvebis wertilebi (meteorologiuri pirobebis da zemoqmedebis regionis gaTvaliswinebiT), samuSao meTodebisa ISO standartebis gamoyenebiT. gaanalizirebulia samecniero literatura da mezomasStabis atmosferuli procesebis ganviTarebis maTematikuri modelebis Sesaxeb, muSavdeba amocanis maTematikuri modeli, agreTve maTematikuri modelis ricxviTi realizaciis algoriTmi da Tvlis programa. SerCeulia sakvlevi wertilebi da aRebulia nimuSebi hidroqimiuri da mikrobiologiuri analizebis Casatareblad.</p> <p>saanalizo nimuSebsi isazRvreboda ZiriTadi ionebi, biogenuri elementebis zogierTi formebi(NO_2^-, NO_3^-, NH_4^+, PO_4^{3-}), mZime liTonebi (Cu, Zn, Pb, Cd), agreTve pararelulad tardeboda mikrobiologiuri analizebi (totaluri koliformebi, fekaluri streptokokebi da E-coli).Aadgilze, savele pirobebSi, gadamtani portatuli aparatis meSveobiT izomeboda wylis fizikur-qimiur maCveneblebi (pH, temperatura, electrogamtaroba, wyalSi gaxsnili Jangbadis raodenoba da marilianoba).Aamrigad, kvlevi obieqtebi Seswavlil iqna kompleqsurad, anu rogorc hidroqimiuri, aseve fizikur-qimiuri da mikrobiologiuri kuTxiTac. kaxeTis regionSi hidroqimiuri da fizikur-qimiuri analizebi Catarda sagarejos, gurjaanis da Telavis (sof.iyalTo) regionebsi. TiToeuli nimuSis aRebis wertili xasiaT -deba Semdegi fizikur-geografiuli maxasiaTeblebiT: simaRle zRvis donidan, koordinatebi, meteorologiuri pirobebi da sxva. Ggazomvebi xorcieldeboda portatuli aparatis ji-pi-es-is meSveobiT.</p> | | |

* saxelmwifo grantiT dafinansebulო
samecniero-kvleviTi proeqtebi

| # | proeqtis dasaxeleba mecnierebis dargisa da samecniero mimarTulebis miTiTebiT | damfinansebeli organizacia | proeqtis xelmZRvaneli | proeqtis Semsruleblebi |
|---|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
| 1 | md. mtkvarSi CaRvri- li nivTierebis gavr- celebis ricxviTi modelis damuSaveba da dabinzurebis gamokvleva | ssip SoTa rusTavelis erovnuli samecniero fondis granti SG/16/9 240/13,xelSekruleba No 59/07. “kvlevebi moswavleTa monawileobiT” | a.surmava | - |

dasrulebuli proeqtis (etapis) Sedegebi (anotacia)

damuSavebulia ricxviTi modeli da gamokvleulia md. mtkavarSi CaRvrili pasiuri damabinZurebeli nivTierebebis gavrcelebis suraTi saqarTvelo-TurqeTis saxelmwifo sazRvris midamoebSi mdebare hipoTeturi stacionaluri damabinZurebeli wyaros SemTxvevaSi. gansazRvrulia damabinZurebeli nivTierebis CaRvris Semdeg nivTierebis koncentraciis mdinaris kalapotSi ganawilebis suraTi, koncentraciis cvlileba mdinaris erTi ubnidan meoreSi gadasvlisa da Cadinebuli wylebiT misi ganzavebis Sedegad. ricxviTi eqsperimentebis saSualebiT modelirebulia da Seswavlilia md. mtkvarSi damabinZurebeli nivTierebis gavrcelebis Taviseburebebi. gansazRvrulia dro, romelic saWiroa imiTvis, rom damabinZurebelma nivTierebam ganvlos mdinaris sxvadasxva ubani, miaRwios mdinareze ganlagebul punqtebs, saqarTvelo - azerbaijanis sazRvars da mingeCauris wyalsacavs. Sefasebulia mudmivi damabinZurebeli wyaros SemTxvevSi koncentraciis fardobiTi cvlilebebi mdinaris 10 pirobiT ubanSi. Tu SevadarebT ricxviTi gamoTvlebis da sxva naSromebSi gamoqveynebul Sedegebs vnaxavT, rom modeli Tvisebrivad sworad aRwers md. mtkvarSi dabinzurebis gavrcelebis zogad suraTs. rac Seexeba raodenobriv mxares sakiTxi moiTxovs damatebiT gamokvlevas, vinaidan dakvirvebebis saTanado monacemebis ararsebobis gamo ver moxerxda miRebuli Sedegebis Sedareba realuri masalebTan. am naklovanebis gamosaworeblad da ricxviTi modelis sizustis gansazRvrad. dagegmilia Sesabamisi eqserimentuli gazomvebisa da Teoriuli gamokvlebebis Catareba.

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| 2 | “alaznis velis xelovnuri wyalsacavebis da maTi mimdebare teritoriebis ekologiuri problemebi klimatis Tanamedrove cvlilebis gaTvaliswinebiT”. 2013-2014ww | S. rusTavelis erovnuli samecniero fondi konkursi “kvlebebi moswavleTa monawileobiT” | I.SavliaSvili | - |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|---|

dasrulebuli proeqtis (etapis) Sedegebi (anotacia)

kvleviTi samuSaoebis Catarebis Semdeg gamokvleulia da naSromSi warmodgenilia monacemebi niadagis qimiuri Sedgenilobis da damlaSebis xarixsis Sesaxeb. kerZod, niadagis marilianobis SedegebiT bunebrivi balaxis damlaSeba gamowveulia hidrome-teorologiuri faqtorebis gavleniT, naleqebiT da aorTqlebiT, radgan am niadagebis damlaSeba ar eqvemdebareba adamianis sameurneo zemoqmedebas (damuSaveba, morwyva da sxva); mSrali naSTis raodenoba icvleba 1,282-1,852 %-is farglebSi, rac miuTiTebis, rom es niadagebi ekuTvnian Zlier damlaSebul kategorias. amave dros damlaSeba sulfa-turi tipisaa, vinaidan sulfatebis Semcveloba am niadagebSi maqsi-maluria da Seadgens 24,06 mg/eqv.-s. venaxis qveS niadagebi miekuTvnebian aradam-laSebuls, maTSi mSrali naSTi meryeobs 0,076-0,114 %-is farglebSi.dadginda xelovnuri wyalsacavebis wylis xarixsi Tebervlis TvisaTvis. aRmoCnda, rom xelovnuri wyalsacavebis wyali am periodSi suf-Taa, radgan zamTarSi Tevzi ar aris maTSi, Tumca SedarebiT maRalia yvela ingredientis Semcveloba Zvel wyalsacavSi. SemuSavebulia niadagebis rege-neraciisaTvis aucilebeli rekomendaciebi.

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| 3 | proeqtis dasaxeleba | damfinansebeli organizacia | proeqtis xelmZRvaneli | proeqtis Semsruleblebi |
| | q.Tbilisis farglebSi mcire mdinareebis (vere, diRmula, | S.rusTavelis erovnuli samecniero fondi konku6bo „kvlebebi | n.buaCiZe | - |

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| | gldanula) wylis xarisxis Sefaseba | moswavleos monawileobiT“ | | |
| dasrulebuli proeqtis (etapis) Sedegebi (anotacia) | | | | |
| <p>dadgenilia, rom sakvlevi samive mdinaris mdgomareoba fiziko-qimiuri maCveneblebis mixedviT damakmayofilebelia. Tumca md.veres SuakveTSi eleqtrogamtarobis maCveneblebi sakmaod maRalia (1250msm/sm). hidroqimiuri maCveneblebidan Sesabamis zRvrulad dasaSveb koncentraciebs (zdk) wyalSi gadaaWarba amoniumis ionis da Jangbadis biologiuri moTxovnilibis (Jbm5) Semcvelobebma, romlebic gansakuTrebulaad sensitiurebi arian mdinaris fekaliebiT dabinZurebis mimarT. mZime liTonebis xsnadi formebs Semcvelobebi wyalSi mcirea da ver aRwevs maT zdk-ebis, rasac ganapirobebs wylis pH–is maRali maCveneblebi (6,5-8,5). am diapazonSi mimdinareobs maTi hidrolizi da isini hidroqsidebis saxiT ileqebian fskerul naleqebSi, anu gadanawildebian wyalSi Setivnarebul nawilakebze da sedimentebSi. totaluri koliformebis, aseve E-call–is koncentraciebi gansakuTrebulaad maRalia md.veres SuakveTSi, Tumca yvela sxva SemTxvevebSi maTi Semcvelobebi mainc aweulia.</p> <p>miRebuli monacemebis safuZvelze SegviZlia vTqvaT,rom md.mtkvris samive Senakadi imyofeba fekaluri dabinZurebis qveS, xolo gansakuTrebuli anTropogenuli datvirTvis qveS ki moqceulia md.veres is SuakveTi (vake–saborTalos monakveTi), romelic iyo Cveni kvlevis erT–erTi obieqti.</p> | | | | |
| 4. | proeqtis dasaxeleba | damfinansebeli organizacia | proeqtis xelmZRvaneli | proeqtis Semsruleblebi |
| | q.Tbilisis avtogasamarTi sadgurebis atmosferul haerSi mavne nivTierebebis emisiis gansazRvra qalaqis Tanamedrove ganaSenianebis Taviseburebebis pirobebSi | SoTa rusTavelis erovnuli samecniero fondi. | m.tabataZe | n.dvaliSvili |
| dasrulebuli proeqtis (etapis) Sedegebi (anotacia) | | | | |
| <p>dResdReobiT didi qalaqebis atmosferul haers yvelaze metad, mtverTan, gogirdis dioqsidTan da azotis oqsidebTan erTad, abinZureben naxSirwyalbadebi. maTi atmosferoSi emisiis ZiriTadi wyaroa avtotransporti da avtogasamarTi sadgurebi (benzingasamarT da gazgasamarTi sadgurebi). avtogasamarTi sadgurebis reservuarebidan da ganTavsebis sxva sistemebidan (avtocisternebi, avtomobilis sawvavis avzi), aseve sawvavis Casxmis drosac, xdeba sawvavis aorTqleba, rac iwvevs naxSirwyalbadebis gafantvas atmosferul haeSi. Sefasebulia q.Tbilisis benzingasamarTi da gazgasamarTi sadgurebis garemoze zemoqmedeba rezervuarebidan da sawvavis gasamarTi svetebidan sawvavis avzSi Casxmis dros emitirebuli gafrqvebebis inventarizaciis gziT da dadgenilia usafrTxo manZili, saidanac atmosferul haerze avtogasamarTi sadgurebis datvirTvis efeqti qreba.samwuxarod dReisaTvis ar arsebobs aranairi informacia saqarTveloSi arsebuli avtogasamarTi sadgurebidan emitirebuli naxSirwyalbadebis Sesaxeb. es aris pirveli qarTuli proeqti, romelic iZleva saSualebas gamovTvaloT da gazomvebis safuZvelze davadginot avtogasamarTi sadgurebidan gafrqveuli naxSirwyalbadebis emisia atmosferul haerSi, davadginot damabinZurebeli nivTierebebis gabnevis areali da SevafasoT avtogasamarTi sadgurebis gavlena qalaqis ekologiur mdgomareobaze.</p> | | | | |

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| 5. | proeqtis dasaxeleba | damfinansebeli organizacia | proeqtis xelmZRvaneli | proeqtis Semsruleblebi |
| | <p>klimatis globaluri cvlilebis prevenciis mizniT norios myari sayofacxovrebo narCenebis poligonidan gamoyofili saTburis airebis raodenobrivi Sefaseba</p> | <p>SoTarusTavelis erovnuli samecniero fondi.</p> | s.mdivani | - |
| dasrulebuli proeqtis (etapis) Sedegebi (anotacia) | | | | |
| <p>Sefasebulia norios myari sayofacxovrebo narCenebis poligonis daxuruli seqtoris WaburRilebidan atmosferoSi gafrqveuli airebis fizikuri maxasiaTeblebi. “nagavsayrelis gazis” xarjis dadgena moxda pitopronelis milisa da mikromanometris gamoyenebiT. Ddadgenilia,rom norios daxuruli poligonidan 2014 wlis 1 kvartalSi gamoiyo 1.2, me-2 kvartalSi-2.05, me-3 kvartalSi-2.49 gg meTani. mTlianad mimdinare wlis sam kvartalSi gamoiyo 5.74 gg meTani.</p> | | | | |

* publikaciebi:

s) saqarTveloSi

monografiebi

| # | avtori/avtorebi | monografiis saTauri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------|---------------------|
| 1 | I.SavliaSvili, g.korZaxia, e.elizbaraSvili, g.kuWava, n.tuRuSi | “alaznis velis niadagebis degradaciis sakiTxebi klimatis Tanamedrove cvlilebis fonze” | Tbilisi, saqarTvelos teqnikuri universiteti | 181 |
| anotaciebi | | | | |
| <p>1. naSromSi moyvanilia Catarebuli kvlevis safuZvelze SemuSavebuli soflis meurneobis mdgradi ganviTarebisaTvis saWiro rekomendaciebi da regionaluri klimatis cvlilebis gaTvaliswinebiT SemuSavebuli saadaptacio RonisZiebebi, raTa ganxorcieldes miwis degradaciis Semcireba, niadagis nayofiirebis amaRleba, mosaxleobis socialur-ekonomikuri mdgomareobis gaumjobeseba da siRaribis daZleva.</p> | | | | |

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnaliskrebulis dasaxeleba | Jurnaliskrebulis nomeri | gamoemis adgili, gamomcemloba | gverdebis raodenoba |
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| 1 | I.SavliaSvili, g.korZaxia, e.elizbaraSvili, g.kuWava, e.baqraZe. | “sasoflo-sameurneo kulturebis mosavlianobis gansazRvra kvadratebis meTodiT” | .iv.javaxiSvilis sax.Tsubm.nodias geofizikis institutis 80-wlisTavisadmi miZRvnili samecniero konferenciis Sromebi | Tbilisi “universali” | 4 |
| <p>naSromSi mocemulia siRnaRis raonis q.wnoris drenaJian da udrenaJo nakveTebze sasoflo sameurneo kulturebis mosavlianobis gansazRvra kvadratebis meTodiT. SerCeul nakveTebze mosavlianobis Sedarebam aCvena, rom drenaJian nakveTebze mosavlianoba Seadgens 20.04c/ha da udrenaJo nakveTebze -17.20c/ha. miuxedavad imisa, rom mwyobridanaa gamosuli koleqtorul-drenaJuli sistema, mosavlianobis gaumjobesebis efeqti mainc SeimCneva.</p> | | | | | |
| 2 | I.SavliaSvili, g.korZaxia, e.elizbaraSvili, g.kuWava, n.nasyidaSvili. | “klimatis cvlilebis gavlena miwis resursebis degradaciaze siRnaRis damlaSebuli niadagebis magaliTze” | saqarTvelosoflis meurneobis mecnierebaTa akademiis saerTaSoriso samecniero konferenciis SromaTa krebuli, | Tbilisi “universali” | 5 |
| <p>naSromSi mocemulia klimatis cvlilebis gavlena miwis resursebis degradaciaze siRnaRis regionis damlaSebuli niadagebis aTvis; saSemodgomo xorblis mosavlianobis Sedareba drenaJian da udrenaJo nakveTebze; degradirebuli niadagebis saadaptacio RonisZiebebis nusxa.</p> | | | | | |
| 3 | I.SavliaSvili, g.gogiZe, m.miqaberiZe, n.WumburiZe, n.BbuaCiZe, s.oTiaSvili. | “alaznis velis niadagebis damlaSebis xarisxi klimatis komponentebTan kavSirSi da maTze ganTavsebuli xelovnuri wyalsacavebis dabinZurebis done”. | saqarTvelos qimiuri Jurnaliskrebuli #1 | Tbilisi, “universali” | 5 |
| <p>naSromSi ganxilulia alaznis velis(s.Zveli anaga)niadagebis damlaSebis xarisxisa da adviladxsad marilTa migracia niadagis profilSi klimatur komponentebTan kavSirSi; agreTve aq ganTavsebuli xelovnuri wyalsacavebis</p> | | | | | |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------|---|
| dabinZurebis done. | | | | | |
| 4 | s.mdivani, n.nasyidaSvili, n.vaSaymaZe, s.mamulia | “norios myari sayofacxovrebo narCenebis poligonis daxuruli seqtoridan gamoyofili airebis raodenobrivi Sefaseba”. | saqarTvelos qimiuri Jurnal #1 | Tbilisi, “universali” | 3 |
| <p>norios myari sayofacxovrebo narCenebis (msn) poligonis daxuruli seqtoris ujreTSi ganviTarebuli anaerobuli procesebis gamo warmoqmnili biogazis anu e.w. nagavsayreli gazi (ng) raodenobrivi Sefasebis mizniT Catarda instrumentaluri gazomvebi. ganisazRvra atmosferoSi emitirebuli airebis fizikuri maCveneblebi da qimiuri Semadgenloba. nagavsayrelis gazis makrokomponentebia meTani da naxSirbadis dioqsidi, xolo mikrokomponentebi – azoti, jangbadi, wyalbadi da naxSirbadis monoqsidi. mikrominarevebidan aRiniSneba gogirdis dioqsidi, gogirdwyalbadi. vinaidan Tavisi SemadgenlobiT nagavsayrelis gazi miekuTvneba ”saTburis airebis” ricxvs, amitom mis utilizacias globaluri mniSvneloba aqvs.</p> | | | | | |
| 5 | n.beglaraSvili, n.nasyidaSvili, l.SavliaSvili. | saqarTveloSi cementis warmoe basTan dakavSirebuli ZiriTa- di saTburis gazebis raodeno- brivi maCveneblis gansazRvra. | beWdvaSia | სამცხე-ჯავახე თის სახელმწიფო უნივერსიტეტის გამომცემლობა. | |
| <p>warmodgenilia saqarTveloSi cementis warmoebis ekologiuri mdgomareoba. ganxilulia egergodanaxarjebi cementis warmoebis srul cikliSi. energodanaxarjebis safuZvelze Sefasebulia ZiriTadi saTburis gazebis emisiebi raodenobrivi maCveneblebi CO₂-is equivalentSi.</p> | | | | | |
| 6 | a.surmava, l.inwkirveli, n.buaCiZe | md.mtkvarSi CaRvrili nivTierebis gavrcelbis ricxviTi modeli da dabinZurebis gamokvleva stacionaluri wyaros SemTxvevaSi, | saqarTve-los qimiuri Jurnal #1, 2014 | Tbilisi, “universali” | 7 |
| <p>uwyyvet garemoSi nivTierebis gadatana-difuziis arastacionaluri wrfivi samganzomilebiani gantolebis gamoyenebiT damuSavebulia md. mtkvarSi moxvedrili damabinZurebeli nivTierebis gavrcelbis ricxviTi modeli. modeli gaTvaliswinebulia pirvel miaxloebaSi md. mtkvarSi damabinZurebeli nivTierebis gavrcelbis SeswavlisaTvis. md. mtkvari dayofilia 10 pirobiTad erTgvarovan wrfiv ubnad da TiToeuli ubisaTvis gamoyenebulia mdinaris maxasiaTebeli hidrologiuri parametrebis saSualo wliuri mniSvnelobebi.</p> <p>ricxviTi eqsperimetriT modelirebulia saqarTvelo-Turqetis saxelmwifo sazRvarTan md. mtkvarSi CaRvrili pasiuri damabinZurebeli nivTierebis gavrcelba stacionaluri wyaros SemTxvevaSi. modelirebiT gansazRvrulia dro, romelic saWiroa imiTvis, rom damabinZurebelma nivTierebam miaRwios mdinareze ganlagebul punqtebs, ganvlos mdinaris sxvadasxva ubani, miaRwios saqarTvelo-azerbaijanis sazRvars da mingeCauris wyalsacavs. gansazRvrulia damabinZurebeli nivTierebis koncentraciis mdinaris kalapotSi ganawilebis suraTi, koncentraciis cvlileba mdinaris erTi ubnidan meoreSi gadasvlisas, Sefasebulia koncentraciis fardobiTi cvlileba mdinaris 10 pirobiT ubanSi.</p> | | | | | |

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| 7 | a.surmava, l.inwkirveli, n.buaCiZe | md.mtkvarSi zalpurad CaRvrili pasiuri damabinZurebeli nivTierebis gavrcelebis ricxviTi modelireba | saqarTve-los qimiuri Jurnal #1, 2014 | Tbilisi, “universali” | 4 |
| <p>uwyvet garemoSi nivTierebis gadatana-difuziis arastacionaluri wrfivi samganzomilebiani gantolebis gamoyenebiT modelirebulia saqarTvelo-Turqetis saxelmwifo sazRvarTan md. mtkvarSi 6 sT ganmavlobaSi zalpurad CaRvrili pasiuri damabinZurebeli nivTierebis gavrceleba. naCvenebia dabinZurebis laqis TandaTanobiTi gadaadgilebis suraTi mdinaris saqarTvelos monakveTSi da difuziis Sedegad gamowveuli koncentraciis TandaTanobiTi cvlileba.</p> | | | | | |
| 8 | a.surmava, l.inwkirveli, n.buaCiZe | md.mtkvaris amoniumis ioniT dabinZurebis Teoriuli gamokvleva | saqarTve-los qimiuri Jurnal #1, 2014 | Tbilisi, “universali” | 5 |
| <p>md.mtkvarSi damabinZurebeli nivTierebis gadatana-difuziis arastacionaluri wrfivi samganzomilebiani gantolebis gamoyenebiT modelirebulia md. mtkvarze ganlagebuli qalaqebidan CaSvebuli amoniumis ionis (NH_4^+) gavrceleba. ricxviTi eqsperimetriT miRebulia md. mtkvarSi amoniumis ionis koncentraciis ganawilebis suraTi. naCvenebia, rom maTematikuri modelirebiT miRebuli koncentraciebis mniSvnelobebi dasaSvebi sizustiT emTxveva naturuli dakvirvebebis monacemebs.</p> | | | | | |
| 9 | Alpenidze M., Diasamidze R., Kordzakhia G., Jomidava R., Tsistskishvili M. | Complex Investigation of Ecological State of the Black Sea and Actions for its Protection | Springer Science+Business Media | Dordrecht | 7 |
| <p>mimoxilulia Savi zRvis wylis formirebis istoria, kerZod Savi zRvis wylis Tanamedrove struqturis Camoyalibeba. ganxilulia Savi zRvis ekologiuri mdgomareobis cvlileba droSi. aseve mimoxilulia Savi zRvis wylebis individualuri damabinZureblebis (hidrosulfati, mTavari ionebi, orgauli nivTierebi da sxva) xasiaTi. aRniSnulia, Savi zRvis dabinZurebis prevenciisadmi saerTaSoriso midgoma da qmedebebi. warmodgenilia Savi zRvis regionis ekologiuri da hidrosulfaturi fenis problemebi, romelic aris misi wylebis dacvis ZiriTadi sakiTxi da maTi gadawyvetisadmi saerTaSoriso midgomebi.</p> | | | | | |
| 10 | a.surmava, l.inwkirveli, n.buaCiZe, l.SavliaSvili, g.kuWava, m.tabataZe | kaxeTis regionSi aqtiuri zemoqmedebis raonebSi mezomasStabis atmosferuli procesebis gamokvlevis da garemos komponentebSi mZime liTonebis fonuri koncentraciebis gansazRvris amocana | saqarTve-los teqnikuri universitetis hidrometeo- rologiis institutis SromaTa krabuli t.120 | Tbilisi, hidrometeorolog iis instituti | gv.78-81. |
| <p>atmosferos hidroTermodinamikis arawrfivi arastacionaluri gantolebebis gamoyenebiT dasmulia kaxeTis teritoriaze saSiSi meteorologiuri procesebis ganvitarobis da mZime metalebis gavrcelebis arakvazistaqikuri amocana. pirvel</p> | | | | | |

miaxloebaSi ricxobrivad modelirebulia konveqciis samganzomilebiani amocana. miRebulia Sedegebi, romlebic Tvisibrivad sworad aRweren konveqciis process.

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| 11 | n. beglaraSvili, nasyidaSvili, SavliaSvili | n. l. cementis qarxnebidan emitirebuli saTburis airebis raodenobrivi Sefaseba | saqarTve-los teqniki universitetis hidrometeorologiis institutis SromaTa krabuli t.120 | Tbilisi, hidrometeorologiis instituti | gv..82-85. |
|----|--------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|------------|

ganxilulia saqarTveloSi cementis warmoebis ekologiuri aspeqtebi saTburis gazebis emisiebis gaTvaliswinebiT. gansazRvrulia egergodanaxarjebi cementis warmoebis srul ciklSi. energodanaxarjebis safuZvelze Sefasebulia ZiriTadi saTburis gazebis emisiebi raodenobrivi maCveneblebi CO₂-is equivalentSi.

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|----|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|----------|
| 12 | s. mdivani, n. nasyidaSvili, n. vaSaymaZe | Tbilisis myari sayofacxovrebo narCenebis poligonebidan atmosferoSi emitirebuli saTburis airebis raodenobrivi Sefaseba | saqarTve-los teqniki universitetis hidrometeorologiis institutis SromaTa krabuli t.120 | Tbilisi, hidrometeorologiis instituti | gv.86-88 |
|----|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|----------|

Tbilisis (m.s.n.) poligonebidan anaerobuli procesebis gamo warmoqmnili biogazi, anu nagavsayrelis gazi (n.g.) atmosferoSi gamoifrqveva didi raodenobiT. es gazi didi raodenobiT Seicavs saTburis airebs meTans, naxSirbadis dioqsids, agreTve mikrokomponentebis azots, Jangbads, wyalbads, mikrominarevebs gogirdis dioqsids, gogirdwyalbads. Seswavlilia eqsperimentulad atmosferoSi emitirebuli nagavsayrelis gazis DSemadgenloba da raodenoba Sedarebulia Teoriulad gamoTvliili nagavsayrelis gazis raodenobasTan

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|----|-----------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|----------|
| 13 | begaliSvili n.a., gelaZe g., begaliSvili n.n. | atmosferoSi aerazolebis gavrcelebis da notio gamorecxvis maTematikuri modelebis Sesaxeb | saqarTve-los teqniki universitetis hidrometeorologiis institutis SromaTa krabuli t.120 | Tbilisi, hidrometeorologiis instituti | gv.89-92 |
|----|-----------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|----------|

ganxilulia atmosferoSi arsebuli aerazoluri nawilakebis notio gamorecxvis procesi. sivrculad erTgvarovani dispersul sistemisaTvis, romelic Sedgeba aerazoluri nawilakebisa da wveTebisagan (kristalebisagan), miRebulia koagulaciis kinetikuri gantolebis analizuri amoxsna aerazolebis mudmivi wyaros moqmedebis pirobebSi. wyaro proporciulia nawilakTa sawyisi ganawilebisa. amoxsnis safuZvelze Sefasebulia notio gamorecxvis efeqturoba sxvadasxva tipis Txevadi naleqebisaTvis (aerazolur nawilakTa relaqsaciis dro). miRebulia, aseve notio gamorecxvis mikrofizikuri

kanonebi gravitaciuli koagulaciis SemTxvevaSi.

ბ) ucxoeTSi

statiebi

| # | avtori/ avtorebi | statiis saTauri, Jurnalis/krebulis dasaxeleba | Jurnal/ krebulis nomeri | gamocemis adgili, gamomcemloba | gverdebis raodenoba |
|---|----------------------------|-------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------|---------------------|
| 1 | m.fifia, n.beglaraSvili | setyvianoba aRmosavleT saqarTveloSi elektronuli samecniero Jurnal | t.8 | burgasi, bulgareTi. "saerTaSoriso samecniero publikaciebi", Sps "info investi" | 7 |

anotaciebi

1. aRmosavleT saqarTvelos 30 meteorologiuri sadguris dakvirvebaTa monacemebiT 1961-2012 wlebisTvis, gamokvleulia setyvianobis dReTa ricxvi, intensivoba, xangrZlivoba, setyvis periodebi, setyvianobis raodenoba da arealebi. miRebuli Sedegebi gamoyenebuli iqneba setyvis sawinaaRmdego samuSaoebis ganaxlebisas.

* samecniero forumebis muSaobaSi monawileoba

ს) saqarTveloSi

| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
|---|--------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 | l.SavliaSvili g.korZaxia | “klimatis cvlileba da misi gavlena soflis meurneobis mdgrad da usafrTxo ganviTarebaze” | 2-4 oqtomberi. saqarTvelos soflis meurneobis mecnierebaTa akademia |

ganxilulia klimatis cvlilebis gavlena miwis resursebis degradaciaze siRnaRis regionis damlaSebuli niadagebisaTvis; saSemodgomo xorblis mosavlianobis Sedareba drenaJian da udrenaJo nakveTebze; degradirebuli niadagebis saadaptacio RonisZiebebis nusxa.

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| 2 | I.SavliaSvili g.korZaxia | “geofizikis aqtualuri problemebi” | Tbilisi. m.nodias geofizikis instituti |
|---|-----------------------------|-----------------------------------|----------------------------------------|

ganxilulia saqarTveloSi cementis warmoebis ekologiuri aspektebi saTburis gazebis emisiebis gaTvaliswinebiT. gansazRvrulia energodanaxarjebi cementis warmoebis srul ciklSi. energodanaxarjebis safuZvelze Sefasebulia ZiriTadi saTburis gazebis emisiebi raodenobrivi maCveneblebi CO₂-is equivalentSi.

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|---|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 3 | n.beglaraSvili. n.nasyidaSvili, I.SavliaSvili | saqarTveloSi cementis warmoebasTan dakavSirebuli ZiriTadi saTburis gazebis raodenobrivi maCveneblis gansazRvra | samcxje-javaxeTis saxelmwifo universiteti, profesor-samecniero maswavlebelTa samecniero konferencia. |
|---|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|

warmodgenilia saqarTveloSi cementis warmoebis ekologiuri mdgomareoba. ganxilulia egergodanaxarjebi cementis warmoebis srul ciklSi. energodanaxarjebis safuZvelze Sefasebulia ZiriTadi saTburis gazebis emisiebi raodenobrivi maCveneblebi CO₂-is equivalentSi.

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|---|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 4 | A. Surmava, L. Intskirveli, N. Buachidze, N. Gigauri | Numerical modeling of the possible transportation and deposition of the radioactive pollution clouds in case of hypothetical accident on the nuclear energetic object in the South Caucasus Region. | 01-05 June , Tbilisi, Georgia. CSCM - World Congress on CBRN |
|---|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|

Sesrulebulia samuSao, romlic iZleva saSualebas Teoriulad modelirebuli iqnes somxeTis atomuri elektrosadguridan hipoTeturi avariis Sedegad amofrqvuli radioaqtiuri izotopis gavrcleba kavkasiis atmosferosa da misi daleqva qvefenil zedapirze. modelirebulia 10 μm diametris ¹³¹I-is amofrqvevis SemTxveva. aRniSnuli izotopi aris erT-erTi ZiriTadi ingredienti, romlis amofrqveva, umetes SemTxvevebSi, Tan sdevs aes-is avariebs. misi gavrclebis gamokvlevis Sedegad SeiZleba Tvisobrivad Sefasdes sxva radioaqtiuri aerazolebis gavrclebis traektoriebi da niadagze dafenis zonebi. naCvenebia, rom kavkasiis regionis reliefi Zlierad moqmedebs minarevebis gavrclebaze. paralelis gaswvriv orientirebuli kavkasionis qedi, ewinaaRmdegeba ra haeris CrdiloeTiT moZraobas, aiZulebs radioaqtiuri nivTierebis ZiriTad nawils, garsSemoedinos mTavar kavkasionis qeds dasavleTis an aRmosavleTis mxridan da Semdgom gavrceldes CrdiloeT kavkasiaSi. gamoTvlebiT naCvenebia, rom daaxloebiT 48 saaTia saWiro imisaTvis, rom radioaqtiuri Rrubeli gadaevlos samxreT kavkasiis da gavrceldes CrdiloeT kavkasiaSi. radioaqtiuri nivTiereba ZiriTadad ileqeba samxreT kavkasiis Crdilo-dasavleT, centralur da Crdilo-aRmosavleT nawilebSi fonuri samxreT-aRmosavleTis, samxreTis da samxreT-dasavleTis qarebis SemTxvevebSi, Sesabamisad. didi raodenobiT daleqvis zonis sigrZe daaxloebiT 750 km-is tolia samxreT aRmosavleTis fonuri qarის dros, da – 350 km-is sxva SemTxvevebSi. Aam zonis sigane daaxloebiT 150 km-s udris. miRebulia, rom rodesac 10 mkm zomis aeropolis amonafrqvevis koncentracia amonafrqvev WavliSi 6 sT-is ganmavlobaSi 100 p.e./m³-is (pirobiTi erTeuli/m³) tolia, maSin daleqili radioaqtiuri nivTierebis zedapiruli

simkvrive maqsimaluri daleqvis zonaSi mcirdeba 360 p.e./m² dan 1 p.e./m²-mde

b) ucxoeTSi

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------|-------------------------------------|
| # | momxsenebeli/ momxseneblebi | moxsenebis saTauri | forumis Catarebis dro da adgili |
| 1 | g.korZaxia, l.SavliaSvili | “saqarTveloSi miwis resursebis degradaciis zogierTi Sedegi” | 27-29 noemberi. egvipte, hurgada |
| <p>mimoxilulia aRmosavleT saqarTvelos dedofliswyaros raioni, romelic aris erT-erTi yvelaze mowyvladi regionis saqarTveloSi bunebrivi katastrofebis kuTxiT, rac negatiur gavlenas axdens sasoflo-sameurne aqtivobaze. mimoxilulia bolo 50 wlis periodSi saSiSi hidrometeorologiuri movlenebis statistikuri monacemebi. miRebulia, rom asset movlenaTa sixSire 1980 wlidan gazrdilia 5-jer, aseve mocemulia temperaturuli trendi da dafiqsirebulia saSualo wliuri temperaturis mateba. warmodgenilia klimatis parametrebis cvlilebis prognozi 2100 wlisaTvis. ganxilulia mocemuli regionisaTvis damaxasiaTebel Savmiwa niadagebSi humusis cvlilebis prognozi, kerZod misi kleba 7.5%-dan - 3.2%-mde. warmosdgenilia dReisaTvis arsebuli monacemebi, romelTa Tanaxmad degradirebuli miwebi regionSi gadanawilebulia 25000 ha-ze. aRniSnul procesSi ZiriTadi roli eniWeba qarbis negatiur zegavlenas.</p> | | | |
| 2 | m.fifia; n.beglaraSvili | setyvianoba saqarTveloSi | aRmosavleT bulgareTi, elenite |
| <p>aRmosavleT saqarTvelos 30 meteorologiuri sadguris dakvirvebaTa monacemebiT 1961-2012 wlebisTvis, gamokvleulia setyvianobis dReTa ricxvi, intensivoba, xangrZlivoba, setyvis periodebi, setyvianobis raodenoba da arealebi. miRebuli Sedegebi gamoyenebuli iqneba setyvis sawinaaRmdago samuSaoebis ganaxlebisas.</p> | | | |

damatebiTi informacia (aqtivoba)

- dasrulda muSaoba Telavis iakob gogebaSvilis saxelobis saxelmwifo universitetis doqtorantis konstantine laSauris sadisertacio naSromze **“klimatis cvlilebis gavlena aRmosavleT saqarTveloSi gvalvianobis dinamikaze, mdinareTa zedapiruli da miwisqveSa Camonadenze”**, Sifri 11.00.09 – meteorologia, klimatologia, agrometeorologia. samecniero xelmZRvanelebi arian geografiis mecnierebaTa doqtori elizbar elizbaraSvili da fizika-maTematikis mecnierebaTa doqtori nodar begaliSvili. naSromi Sesrulebulia saqarTvelos teqniki universitetis hidrometeorologiis institutis wylis resursebisa da hidrologiuri prognozebis da klimatologiis da agrometeorologiis gan-yofilebebSi 2012-2014 wlebsi. sadisertacio naSromi wardgenilia geografiis doqtoris akademiuri xarixis mosapoveblad. SerCeulia Semfaseblebi: geografiis mecnierebaTa doqtori liana qarTveliSvili, geografiis mecnierebaTa doqtori melor alfeniZe. dabeWdilia sadisertacio naSromis avtore-

ferati. dagegmilia disertaciis dacva 2015 wlis TebervalSi, zust da sabunebismetyvelo mecniereba-Ta fakultetis sdisertacio sabWos sxdomaze.

- **naTela davalisvili** - 2014 wlis 1 aprilidan – 31 ivlisis CaTvliT, S.rusTavelis erovnuli samecniero fondis dafinansebiT gavlilia staJireba drezdenis teqnikuri universitetis narCenebis marTvis institutSi (germania, q.pirna).
- **naTela dvalisvili** – saerTaSoriso ganviTarebis saagento vinrok interneisenalis NATELI II – “mdgradi ganviTarebis centri” – remisis mier, "potencialis amaRleba dabalemisian ganviTarebis strategiis (EC-LEDS) SemuSaveba, sufTa energiis programa"-Si ayvanilia eqspertad klimatis cvlilebis - narCenebis seqtorSi.
- **naTela dvalisvili** – merebis erTdRiani samuSao Sexvedra da 2-dRiani seminari Temaze: “gamowvevebi qalaqebis energetikis mdgradi ganviTarebis samoqmedo gegmis momzadebisa da monitoringisaTvis saWiro monacemTa Segrovebis procesSi”, gakeTda moxseneba – “emisiebis Sefaseba narCenebis seqtorSi”, 17-18 seqtemberi,baTumi.
- **g. korZaxia**- samecniero mivlinebebi, eqspediciebi, vorkSopebi (treningi)

| | | |
|--|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| | Work Programme of Horizon 2020 on Climate action, Environment, Resource Efficiency and Raw Materials | Priorities of Georgia’s related to Horizon 2020 on Climate action and in frames of EaP cooperation |
| | samecniero mivlineba CexeTis hidrometeorologiur institutSi | CexeTi, praRa |

- **n.buaCiZe** - proeqti – “davasufTaoT saqarTvelo – sazogadoebis cnobierebis amaRleba da misi CarTva myari sayofacxovrebo narCenebis marTvis gaumjobesebis procesSi” -- SvedeTis saerTaSoriso ganviTarebis saagento –2014-2015 w.w. – ekolog-eqsperti.
- **I.inwkirveli, g.korZaxia, n.buaCiZe, g.kuWava, a.surmava, m.tabataZe** – nato-s programis “mecniereba mSvidobisa da usafrTxoebisaTvis” sainformacio dRe. Tbilisi,sastumro redison bluveria, 2 ivlisi.
- **I.inwkirveli, a.surmava, n.buaCiZe** –samuSao Sexvedra qbrb usafrTxoebis programiT EU CBRN Centres of ExcellenceWorkshop on the National CBRN Action Plan of Georgia,Tbilisi,11-12 September 2014.
- **I.inwkirveli, g.kuWava** –kavkasiis regionuli garemosdacviTi centris samuSao Sexvedra-Stakeholder Validation Workshop For „Water Resources Management Sustainability Index Tool (WRM SIT) Initiative Field Application Testing“**Date:**22September,2014, **Venue:**Holiday Inn.

pedagogiuri gamocdileba:

- **beglaraSvili nazibrola** – 2013 wlidan samcxe-javaxeTis saxelmwifo universitetis miwveuli doqtori, specialoba; meteorologia-klimatologia, agrometeorologia, globaluri ekologia.
- **inwkirveli liana** - Tbilisis vl.komarovis fizika-maTematikis #199 sajaro skolis qimiis pedagogi.

- **melaZe maia** - saqarTvelos teqnikuri universitetis agraruli mecnierebebisa da biosistemebis inJiningis fakulteti, miwveuli profesori.
- **gunia gari** - saqarTvelos teqnikuri universiteti, miwveuli profesori.
- **beglaraSvili nazibrola** - samcxე-javaxeTis saxelmwifo universitetis miwveuli doqtori.
- **inwkirveli liana** - Tbilisis vl.komarovis fizika-maTematikis #199 sajaro skolis qimiis pedagogi.