Publications

A summary of publications can be found at Scholar (Google), ORCID or ResearchID. My profile is online at Research Gate and provides links to online papers for registered users. Publications are stored in a reference database, further references are found in reference databases (Zotero and Mendeley). References for current research projects are collected at Bibsonomy.

- Reports, Books, Scripts
- Environmental Hydrology & International Water Management (MaEE)

2018 (2)


  \begin{verbatim}
  @Article{Ardelt2018,
    author = {Ardelt, G. and Hellbrück, H. and Külls, C.},
    title = "Towards intrinsic molecular communication using isotopic isomerism",
    journal = "Very Large Internet of Things",
    year = "2018",
    publisher = "VLDB Conference Rio de Janeiro",
    pages = "1--6"
  }
  \end{verbatim}


  \begin{verbatim}
  @Article{soil-2018-9,
    TITLE = {Application of a laser-based spectrometer for continuous insitu measurements of stable isotopes of soil CO$_2$ in calcareous and acidic soils},
    JOURNAL = {SOIL Discussions},
    VOLUME = {2018},
    YEAR = {2018},
    PAGES = {1--29},
    URL = {https://www.soil-discuss.net/soil-2018-9/},
    DOI = {10.5194/soil-2018-9}
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  \end{verbatim}
2014 (4)


```biblatex
@Article{Mueller_etal2014,
title = "Tracking water pathways in steep hillslopes by $\delta^{18}$O depth profiles of soil water",
journal = "Journal of Hydrology",
year = "2014",
publisher = "Elsevier",
volume = "519",
pages = "340--352",
optnote = "exported from refbase (http://uhydro.de/base/show.php?record=1234), last updated on Fri, 10 Apr 2015 12:35:09 +0200"
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```biblatex
@InProceedings{Kuells_etal2014,
title = "Integrated use of soil physical and water isotope methods for ecohydrological characterization of desertified areas",
booktitle = "EGU General Assembly Conference Abstracts",
year = "2014",
volume = "16",
pages = "15430",
optnote = "exported from refbase"
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2013 (3)


@Article{Klaus_etal2013,
  title = "Macropore flow of old water revisited: experimental insights from a tile-drained hillslope",
  journal = "Hydrology and Earth System Sciences",
  year = "2013",
  publisher = "Copernicus GmbH",
  volume = "17",
  number = "1",
  pages = "103--118",
  optnote = "exported from refbase (http://uhydro.de/base/show.php?record=1228), last updated on Fri, 10 Apr 2015 12:39:05 +0200"
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@Article{Davila_etal2013,
  author = "Davila, P.F. and Külls, C. and Weiler, M.",
  title = "A toolkit for groundwater mean residence time interpretation with gaseous tracers",
  journal = "Computers & Geosciences",
  year = "2013",
  publisher = "Pergamon",
  volume = "61",
  pages = "116--125",
  optnote = "exported from refbase (http://uhydro.de/base/show.php?record=1232), last updated on Fri, 10 Apr 2015 12:35:09 +0200"
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```bibtex
@Article{Baram_etal2013,
title = "Desiccation-crack-induced salinization in deep clay sediment",
journal = "Hydrology and Earth System Sciences",
year = "2013",
publisher = "Copernicus GmbH",
volume = "17",
number = "4",
pages = "1533--1545",
optnote = "exported from refbase (http://uhydro.de/base/show.php?record=1230), last updated on Fri, 10 Apr 2015 12:35:54 +0200"
}
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**2012 (3)**

• C. Külls (2012) Rekonstruktion hydrologischer Extreme in der Namibwüste. 69–82. Freiburg. [bibtex](http://www.uhydro.de/hywa/)

```bibtex
@Article{Kuells2012,
author = "Külls, C.",
title = "Rekonstruktion hydrologischer Extreme in der Namibwüste",
year = "2012",
address = "Freiburg",
volume = "101",
pages = "69--82",
optkeywords = "Namib",
optkeywords = "Grundwasser",
optkeywords = "Isotope",
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```bibtex
@Article{Klaus_etal2012,
    title = "Macropore flow of old water revisited: where does the mixing occur at the hillslope scale?",
    journal = "Hydrology and Earth System Sciences Discussions",
    year = "2012",
    publisher = "Copernicus GmbH",
    volume = "9",
    number = "4",
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```bibtex
@Article{Garvelmann_etal2012,
    author = "Garvelmann, J. and Külls, C. and Weiler, M.",
    title = "A porewater-based stable isotope approach for the investigation of subsurface hydrological processes",
    journal = "Hydrology and Earth System Sciences",
    year = "2012",
    publisher = "Copernicus GmbH",
    volume = "16",
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    pages = "631--640",
    optnote = "exported from refbase (http://uhydro.de/base/show.php?record=1216), last updated on Fri, 10 Apr 2015 12:37:18 +0200"
}
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investigation of subsurface hydrological processes (discussion paper). *Hydrology and Earth System Sciences Discussions* 8 (5). 9089-9112. doi bibtex

```bibtex
@Article{Garvelmann_etal2011,
  author="Garvelmann, J. and Külls, C. and Weiler, M.",
  title="A porewater -- based stable isotope approach for the investigation of subsurface hydrological processes (discussion paper)",
  journal="Hydrology and Earth System Sciences Discussions",
  year="2011",
  volume="8",
  number="5",
  pages="9089--9112",
  issn="1812-2116",
  doi="10.5194/hessd-8-9089-2011"
}
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```bibtex
@Article{Frey_etal2011,
  author="Frey, S. and Külls, C. and Schlosser, C.",
  title="New Hydrological Age-Dating Techniques using Cosmogenic Radionuclides Beryllium-7 and Sodium-22",
  year="2011",
  optnote="exported from refbase (http://uhydro.de/base/show.php?record=1233), last updated on Fri, 10 Apr 2015 12:35:09 +0200"
}
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2010 (1)


```bibtex
@article{Benito.51,
  author = {Benito, G. and Rohde, R. and Seely, M. and Külls, C. and Dahan, O. and Enzel, Y.},
  title = {Management of Alluvial Aquifers in Two Southern African Ephemeral Rivers: Implications for IWRM},
}
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- http://www.uhydro.de/hywa/
2009 (3)


```json
@article{Morin.18,
  author = {Morin, E. and Grodek, T. and Enzel, Y. and Dahan, O. and Benito, G. and Külls, C. and Jacoby, Y. and van Langenhove, G. and Seely, M.},
  title = {Flood routing and alluvial aquifer recharge along the ephemeral arid Kuiseb River, Namibia},
  URL = {http://linkinghub.elsevier.com/retrieve/pii/S0022169409000882},
  volume = {368},
  year = {2009},
  journal = {J. Hydrol.},
  pages = {262--275}
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```json
@book{Leibundgut.29,
  author = {Leibundgut, C. and Maloszewski, P. and Külls, C.},
  title = {Tracers in hydrology},
  ISBN = {978-0470518854},
  edition = {1st},
  year = {2009},
  publisher = {John Wiley & Sons}
}
```

- C. Külls, J. Zabori (2009) On the representation of hydrological processes in current SVAT
schemes-comparison and perspective (Invited). \textit{AGU Fall Meeting Abstracts}. web \texttt{bibtex}

```latex
@article{Kulls.43,
  author = {Külls, C. and Zabori, J.},
  title = {On the representation of hydrological processes in current SVAT schemes-comparison and perspective (Invited)},
  URL = {http://adsabs.harvard.edu/abs/2009AGUFMB14A..01K},
  year = {2009},
  journal = {AGU Fall Meeting Abstracts}
}
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2008 (5)


```latex
@article{Klaus.20,
  author = {Klaus, J. and Külls, C. and Dahan, O.},
  title = {Evaluating the recharge mechanism of the Lower Kuiseb Dune area using mixing cell modeling and residence time data},
  URL = {http://linkinghub.elsevier.com/retrieve/pii/S002216940800293X},
  DOI = {10.1016/j.jhydrol.2008.06.012},
  volume = {358},
  number = {3-4},
  year = {2008},
  journal = {J. Hydrol.},
  pages = {304--316}
}
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- C. Külls (2008) Significant trends, underlying processes and indicators-the validation of hydrological change. \texttt{bibtex}

```latex
@misc{Kulls.45,
  author = {Külls, C.},
  title = {Significant trends, underlying processes and indicators-the validation of hydrological change},
  year = {2008},
}
```

- C. Külls (2008) The WADE experience-twinning hydrological research and IWRM in European and Southern African drylands. \texttt{bibtex}

```latex
@misc{Kulls.44,
  author = {Külls, C.},
}
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- [http://www.uhydro.de/hywa/](http://www.uhydro.de/hywa/)

```latex
@article{Heidbuechl.50,
  author = {Heidbuechl, I. and Külls, C.},
  title = {Groundwater controls on flash flood shape and incidence},
  year = {2008},
  journal = {Geophysical Research Abstracts}
}
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```latex
@article{Dahan.11,
  title = {Dynamics of flood water infiltration and ground water recharge in hyperarid desert},
  URL = {http://www3.interscience.wiley.com/journal/119390554/abstract},
  DOI = {10.1111/j.1745-6584.2007.00414.x},
  volume = {46},
  number = {3},
  year = {2008},
  journal = {Ground Water},
  pages = {450--461}
}
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2007 (5)


```latex
@article{Zagana.21,
  author = {Zagana, E. and Külls, C. and Udluft, P. and Constantinou,
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http://www.uhydro.de/hywa/de/publications/start  Printed on 2019/07/11 15:02
C.

title = {Methods of groundwater recharge estimation in Eastern Mediterranean - a water balance model application in Greece, Cyprus and Jordan},

URL = {http://www3.interscience.wiley.com/journal/114202156/abstract},

ISSN = {1099-1085},

DOI = {10.1002/hyp.6392},

volume = {21},

number = {18},

year = {2007},

journal = {Hydrol. Proc.},

pages = {2405--2414}


@article{Zagana.17,
    author = {Zagana, E. and Obeidat, M. and Külls, C. and Udluft, P.},
    title = {Chloride, hydrochemical and isotope methods of groundwater recharge estimation in eastern Mediterranean areas: a case study in Jordan},
    URL = {http://www3.interscience.wiley.com/journal/114202153/abstract},
    DOI = {10.1002/hyp.6390},
    volume = {21},
    number = {16},
    year = {2007},
    journal = {Hydrol. Proc.},
    pages = {2112--2123}
}


@article{Kulls.49,
    author = {Külls, C.},
    title = {Interaction between riparian phreatophytes, alluvial aquifers and channel processes},
    year = {2007},
    journal = {Geophysical Research Abstracts}
}


- http://www.uhydro.de/hywa/
@article{Kulls.36,
    author = {Külls, C.},
    title = {Large basins as isotopic monitors of hydrologic response in arid zones},
    year = {2007},
    journal = {Geophysical Research Abstracts}
}


@article{Dahan.59,
    author = {Dahan, O. and Shani, Y. and Enzel, Y. and Yechieli, Y. and Yakirevich, A.},
    title = {Direct measurements of floodwater infiltration into shallow alluvial aquifers},
    volume = {344},
    year = {2007},
    journal = {Journal of Hydrology},
    pages = {157--170}
}

2006 (1)


@article{Kulls.38,
    author = {Külls, C.},
    title = {Indicators for the the distribution of flood recharge along ephemeral rivers},
    year = {2006},
    journal = {Geophysical Research Abstracts}
}

2004 (1)


@inproceedings{Troger.54,
    author = {Tröger, U. and Dias, C. L. and Guillaumon, J. R. and Iritani, M. A. and Külls, C. and Schuler, G.},

2003 (2)


@incollection{Voerkelius.22,
  title = {Investigations on Water Management and Water Quality in Picos/PI and Taua/CE},
  ISBN = {3540438246},
  year = {2003},
  publisher = {Springer},
  address = {Berlin, Heidelberg, New York},
  booktitle = {Investigations on Water Management and Water Quality in Picos/PI and Taua/CE},
  pages = {173--184}
}


@book{Gaiser.52,
  title = {Global Change and Regional Impacts},
  edition = {1},
  year = {2003},
  publisher = {Springer},
  address = {Berlin, Heidelberg, New York},
  keywords = {Brazil, IWRM}
}
2002 (1)


```json
@incollection{Adar.46,
  author = {Adar, E. and Külls, C.},
  title = {MCMsf - Mixing-cell model for a steady flow MIG: Mixing-cell input generator. A short manual for installation and operation of MCMsf using the MIG mixing-cell input generator},
  URL = {http://www-naweb.iaea.org/napc/ih/documents/TECDOCS/TECDOC{20Flow{20and{20Transport{20groundwater{20UIAGS.PDF}},
  series = {IAEA-TECDOC},
  number = {1448},
  year = {2002},
  publisher = {IAEA},
  address = {Vienna},
  booktitle = {{Use of Isotopes for Analyses of Flow and Transport Dynamics in Groundwater Systems}},
  pages = {1--29},
  keywords = {groundwater,mixing,modeling}]
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2001 (2)


```json
@incollection{Klock.34,
  author = {Klock, H. and Külls, C. and Udluft, P.},
  title = {Estimating recharge values using hydrochemical and geological data: A case study from the semiarid Kalahari},
  URL = {http://cat.inist.fr/?aModele=afficheN{&}cpsidt=1021076},
  ISBN = {1-901502-56-2},
  series = {Red Book Series},
  number = {269},
  volume = {269},
  year = {2001},
  publisher = {IAHS Red Book Series},
  address = {Wallingford U.K.},
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```bibtex
@article{Kulls.30,
    author = {Külls, C.},
    title = {Groundwater of the North-Western Kalahari, Namibia. Estimation of Recharge and Quantification of the Flow Systems},
    url = {http://nbn-resolving.de/urn:nbn:de:bvb:20-1180680},
    issn = {09309-3757},
    volume = {28},
    year = {2001},
    journal = {Hydrogeologie und Umwelt},
    pages = {1--165}
}
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2000 (7)


```bibtex
@incollection{Udluft.16,
    author = {Udluft, P. and Külls, C.},
    title = {Mapping the availability and dynamics of groundwater recharge: Part I: Modelling techniques},
    booktitle = {3rd Congress on Regional Geological Cartography and Information Systems},
    pages = {337--340},
    year = {2000}
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```bibtex
@article{Zagana.39,
    author = {Zagana, E. and Külls, C. and Udluft, P.},
    title = {Hydrochemie und Wasserhaushalt des Aliakmonas},
    url = {http://cat.inist.fr/?aModele=afficheN&cpsidt=1328751},
    issn = {0083-6915},
    volume = {94},
    year = {2000},
}
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```latex
@article{Klock.37,
  author = {Klock, H. and Külls, C. and Udluft, P.},
  title = {Estimation of relative recharge values for the northern Kalahari catchment, Namibia},
  volume = {22},
  number = {4},
  year = {2000},
  journal = {Journal of African Earth Sciences},
  pages = {47}
}
```


```latex
@incollection{Kulls.23,
  author = {Külls, C. and Udluft, P.},
  title = {Mapping the availability and dynamics of groundwater recharge. Part II: Case studies},
  year = {2000},
  booktitle = {3rd Congress on Regional Geological Cartography and Information Systems},
  pages = {163--168}
}
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```latex
@misc{Kulls.53,
  author = {Külls, C. and Salameh, E. and Udluft, P.},
  title = {Assessing water supplies for irrigation - availability of natural resources and sustainability indices},
  organization = {Univ. Hohenheim},
  year = {2000},
  location = {Hohenheim}
}```

```bibtex
@phdthesis{Kulls.14,
  author = {Külls, C.},
  title = {Groundwater of the North-Western Kalahari, Namibia: Estimation of recharge and quantification of the flow systems},
  year = {2000},
  school = {Maximilians University},
  address = {Würzburg},
  journal = {Doktorarbeit, Universität Würzburg}
}
```


```bibtex
@article{Kulls.12,
  author = {Külls, C. and Adar, E. and Udluft, P.},
  title = {Resolving patterns of groundwater flow by inverse hydrochemical modelling in a semiarid Kalahari basin},
  URL = {http://iahs.info/redbooks/a262/26265.htm},
  number = {262},
  year = {2000},
  journal = {IAHS},
  pages = {447--451}
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1997 (1)


```bibtex
@incollection{Demuth.15,
  author = {Demuth, S. and Külls, C.},
  editor = {Rosberg, D. and al.},
  title = {Probability analysis and regional aspects of droughts in southern Germany},
  series = {Red Book Series},
  volume = {240},
  year = {1997},
  publisher = {IAHS Red Book Series},
  address = {Wallingford U.K.},
}
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1994 (2)


```latex
@article{Kulls.13,
  author = {Külls, C. and Leibundgut, C. and Schwarz, U. and Schick, A.},
  title = {Channel infiltration study using dye tracers},
  URL = {http://iahs.info/redbooks/a232/iahs{\_}232{\_}0429.pdf},
  ISSN = {0-947571-64-7},
  number = {232},
  year = {1994},
  journal = IAHS,
  pages = {429--436},
  month = {August}
}
```

- C. Külls (1994) Transmission Losses from Ephemeral Floods in Nahal Zin, Israel. Albert Ludwigs University Freiburg. bibtext

```latex
@mastersthesis{Kulls.19,
  author = {Külls, C.},
  title = {Transmission Losses from Ephemeral Floods in Nahal Zin, Israel},
  year = {1994},
  address = {Albert Ludwigs University Freiburg}
}
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