

10th Water Research Horizon Conference 2019
18 June 2019 | Geozentrum Hannover

Information of Open Space Workshop c

<p>Title of the workshop</p>	<p>Isotopes in the hydrologic cycle in relation to water and food security</p>
<p>Moderator*s/ organisator*s</p>	<p>Johannes A.C. Barth¹, Christoph Neukum², Thomas Himmelsbach²</p> <p>¹Chair of Applied Geology, GeoZentrum Nordbayern, Friedrich-Alexander-Universität Erlangen-Nürnberg, johannes.barth@fau.de</p> <p>²Federal Institute for Geosciences and Natural Resources (BGR),</p> <p>Johannes.barth@fau.de</p> <p>christoph.neukum@bgr.de</p> <p>thomas.himmelsbach@bgr.de</p>
<p>Objective of the workshop</p>	<p>Bring together experts on the topic of water research, stable isotopes agriculture and food</p>
<p>Expected outcome</p>	<p>Next to networking and exchange of ideas we plan to deliver a research synthesis for practical recommendations. If suitable this might be published in a synthesis paper.</p>
<p>Short abstract of the topic</p>	<p>Stable isotopes help to characterize and quantify hydrological processes including precipitation, evaporation origin and fate or mixing of surface- and groundwater. When expanding to dissolved and particulate phases, carbon, nitrogen, dissolved oxygen or sulfur stable isotopes may help to characterize turnover and origin of aqueous phases. With this, stable isotope investigations offer additional information to standard hydrological and geochemical techniques. The workshop aims to assemble experts from</p>

	<p>hydro(geo)logy, agriculture and stable isotope geochemistry to develop and expand topics in hydrological and geochemical fields with possible relations to water and food security. Example topics may include mixing of surface and groundwater masses such as seawater intrusion in coastal areas, food authentication, purification of water via evapotranspiration techniques and input as well as necessities for agricultural use of water.</p>
<p>Planned course</p>	<p>Planned speakers will be</p> <ul style="list-style-type: none"> - Prof Len Wassenaar stable isotope expert from the UN International Atomic Energy Agency (IAEA). - Dr. George Darling from the British Geological Survey. - Paul Koeniger: German Isotope Network (GIN): Current state and future perspectives (BGR) - <p>Their presentations will lead to interactive discussion</p>