BayCEER Kolloquium

Lectures in Ecology and Environmental Research

Summer 2018

UNIVERSITÄT BAYREUTH

Thursday
17.05.2018
12:00 in H6, GEO

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Towards reproducible research: Data Science, R, and why researchers develop software

An essential element of scientific research is reproducibility of results. Modern science renders an increased complexity of measurement and analytical methods, which not necessarily, but often, lead to limited transparency, and selective reporting. Such situation promotes growing numbers of irreproducible data. On the contrary, distributed analyses environments, developed by researchers and set up in a bottom-up approach can forge a shared vision of data handling, reproducibility, and trust. The statistical programming environment R has already paved a way, facilitating developments of data-driven and open-source tools. Luminescence dating techniques are amongst the most important and flexible geochronological tools in Quaternary Science, constituting a cornerstone of the Earth and Archaeological Sciences. By using examples from the field of luminescence (dating), the presentation will shed light on the question "Why researchers develop software?", and how R and the emerging field of Data Science may lead to better reproducibility of scientific results.

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The lectures are an inter-disciplinary platform for students, junior and senior scientists. Abstracts and further information: www.bayceer.uni-bayreuth.de/kolloquium/