



Research Training Group
"NatRiskChange" (GRK 2043/1)



**Invitation to a guest lecture within the lecture series
"Dedicated Lectures in Natural Hazard and Risk Research"**

Prof Okke Batelaan

National Centre for Groundwater Research and Training, College of Science and
Engineering Flinders University, Adelaide, Australia

gives a lecture on

**"Droughts, floods and fires Downunder – hydrological
perspectives"**

Thursday, 14 June 2023 at 1 pm

Campus Golm, House 1, Room 1.15

Online access: <https://uni-potsdam.zoom.us/j/62368964504>

Meeting-ID: 623 6896 4504

ID code: 37406029

Abstract

Australia is considered to be the driest continent on earth but is also characterized by extreme floods and fires. Extremes are rather considered the 'normal'. Geologically, meteorologically, and hydrologically there are multiple reasons for these extremes; several have major large-scale (oceanic) origins and can enhance or weaken each other effects. There are also strong interactions between droughts, fires and floods and remarkable differences between Eastern, Western and Northern Australia.

In this presentation, I will characterize some of the recent droughts, floods and fires and provide hydrological and landscape context through different research avenues and projects in which Flinders University is involved. One example will be remote sensing and GRACE-based large-scale vegetation-water interaction analyses, which will be shown to have important spatiotemporal patterns. Another highlighted example is the importance of water in socio-economic-environmental and cultural interactions in the landscape through research work in Northern Australia and in the Murray-Darling Basin.