



**The DFG Research Training Group on Urban Water Interfaces (UWI) invites to a  
guest lecture by**

**Prof. em. Dr. Wolfgang Kinzelbach  
Institute for Environmental Engineering  
ETH Zurich**

**Thursday, 16<sup>th</sup> May 2019, 4:15 – 5:15 pm  
TU Berlin, Chair of Water Resources Management and Modeling of Hydrosystems,  
Room 566**

**Lecture title: *How to control overpumping of aquifers***

*Abstract*

Overpumping of aquifers, mainly due to irrigated agriculture, is an unsustainable practice found in numerous regions of the world. While economists advocate non-regulation free market outcomes, here the point of view is argued that an early control of overpumping is a better choice. Consequences of overpumping are numerous including drying up of wetlands, die-off of phreatophytic vegetation, soil subsidence, seawater intrusion and increase of pumping energy requirements. We particularly note the value of a well-filled aquifer as a means of buffering increased climatic variability expected under climate change. While control of a surface reservoir is easy, the control of ten thousands of wells is a challenging task. It can be tackled with new technologies, which have recently become available. However, these technologies only work, if farmers cooperate.

Experience from a cooperation project in China (funded by the Swiss Agency for Cooperation and Development) is presented. It covers two pilot regions. In both cases a system with the three elements monitoring, data analysis/modelling, and policy implementation has been designed. While the control scheme in the first pilot region, the Heihe Basin is showing first positive results, the second pilot in North China plain still poses a more fundamental problem.

*About the speaker*

Prof. Kinzelbach was professor of hydromechanics and groundwater at ETH Zurich until his retirement in 2014. One of his major interests is in sustainable use of water resources. In this context, he is still leading a major project in China on groundwater management. Prior to his position at ETH he was professor of environmental physics at Heidelberg University and professor of technical hydromechanics and hydrology at Kassel University. Among other prizes, he was awarded the Darcy-medal of the European Geophysical Union. He is a fellow of the American Geophysical Union. His project work took him to Africa, Central Asia and China.

For further information, please visit <http://www.ifu.ethz.ch/projects/china-groundwater-management-project/people/WolfgangKinzelbach.html>

How to find TU Berlin, Chair of Water Resources Management and Modeling of Hydrosystems:  
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