Chen Wang is a 4th year PhD student in the Department of Earth and Environmental Science at Rutgers University-Newark. His research broadly focuses on the mechanisms of Spectral Induced Polarization (SIP) response from various earth materials. A recent 2018 AGU oral presentation uses SIP to characterize the iron oxides in the streambed produced due to the interaction between groundwater and surface water. Through in situ characterization of iron oxide distributions, Chen aimed to 1) help identify anoxic groundwater discharges and 2) quantify the capacity for contaminant removal by sorption to iron oxides. Other recent work by Chen has developed a novel correction method that accurately predicts and removes the errors of SIP data collected at kHz frequencies (Wang, C., & Slater, L. D. 2019).

Before attending Rutgers, Chen attended Sun Yat-sen University, China (2012) where he received a B.S. Environmental Science. In 2015 he received a Dual M.S. Environmental Engineering from Chinese Academy of Science, China and University of Copenhagen, Denmark. Chen had no background in geophysics before entering his PhD and was working towards becoming an environmental engineer. His first exposure came from an Electrical Environmental Geophysics class and was surprised that he had never heard about these powerful techniques. He became fascinated by imaging subsurface environments non-invasively via measuring electrical signals and decided to pursue further research on the complex conductivity method known as Spectral Induced Polarization (SIP). He was particularly drawn to this method because of its sensitivity to hydrogeological and biogeochemical properties as well as its relevance in many environmental applications. Since then Chen has demonstrated a passion for his research and has received several accolades including a Geological Society of America Graduate Student Research Grant, SEG/Gerald W. Hohmann Memorial Scholarship; Earl D. and Reba C. Griffin Memorial Scholarship, and the Best Student Paper at the 5th International Workshop on Induced Polarization. After graduation Chen will pursue an academic career in Near Surface Geophysics.

For more information about his research please contact Chen Wang.

Interested in being highlighted, or know a student who should be? Please email Matthew Sirianni for more information about the Student Spotlight. We are also seeking research highlights that showcase use of near-surface geophysics in other AGU sections and focus groups. If you are interested in writing a short, one-page highlight, please contact Kisa Mwakanyamale.