

## **Dr. Bin Zhou**

Peking University

China

Bin is an Associate Professor at School of Mathematical Sciences, Peking University in Beijing. He obtained his B.S. degree from Beijing Normal University in 2004, and a joint Ph.D. in Mathematics from The Australian National University and Peking University in 2010. He was a Simons Postdoctoral Fellow at Beijing International Center for Mathematical Research from 2010 to 2012 and an ARC DECRA research fellow at The Australian National University from 2012 to 2016. He was then an Associate Professor at Peking University since 2015. Bin's research expertise is in differential geometry and complex Monge-Ampère equations.

Title: On variational problems with a convexity constraint

### Abstract:

In this talk, I will report the recent progress on variational problems with a convexity constraint, including the interior regularity of minimizers and the approximation by singular Abreu equations. The results apply to many problems which contains the principal-agent problems studied by Figalli-Kim-McCann. In particular, the famous Rochet-Chone mode is included.