



Department of Mathematics  
The Chinese University of Hong Kong

數學系  
香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: [dept@math.cuhk.edu.hk](mailto:dept@math.cuhk.edu.hk) (Math. Dept.)  
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

# Inverse Problems Seminar

*Null space networks for inverse problems*

*Prof. Markus Haltmeier*  
*University of Innsbruck*

## Abstract

Most image reconstruction tasks lead to inverse problems characterized by its ill-posed nature. Their stable solution requires special solution techniques based on regularization. Many classical regularization methods are well-established and well-studied. Recently, deep learning and neural network based algorithms have appeared as a new paradigm for learned (data-driven) solution of image reconstruction tasks. In this talk we discuss and analyze the null space networks for learned solution inverse problems showing its stability, data consistency, and convergence.

Date: November 24, 2022 (Thursday)  
Time: 4:00pm – 5:00pm (Hong Kong Time)  
ZOOM link: <https://cuhk.zoom.us/j/98241093146>  
Meeting ID: 982 4109 3146

*All are Welcome*