

BASICS ON THE HYPERGRAPH CONTAINER METHOD I

Online Seminar

Speaker: Hong Liu
University of Warwick

Time: Thur, May. 7th, 15:00-16:30

Zoom meeting ID: 942 175 59283

Password: 061801

Link: <https://zoom.com.cn/j/94217559283>

Abstract: This is a gentle introduction to basics of the hypergraph container method introduced independently by Balogh, Samotij and Morris, and Saxton and Thomason. The method has seen numerous applications in extremal combinatorics and other related areas in the past decade. We will focus mostly on examples, illustrating how to apply this method on various types of problems.

Talk 1: We will present the basic form of the container theorem and see some of its early applications on counting problems in extremal combinatorics.

About the speaker: Hong Liu is an assistant professor at the \linebreak Mathematics Institute at University of Warwick, UK. He is currently a UKRI Future Leaders Fellow awarded by UK Research and Innovation. He got his Ph.D. at University of Illinois at Urbana Champaign in 2015, under supervision of Jozsi Balogh. Prior to his current position, Liu was a Leverhulme Early Career Fellow at University of Warwick, working with Oleg Pikhurko. Liu's research interests are mainly in extremal and probabilistic combinatorics, graph theory, Ramsey theory, and combinatorial number theory.