SCMS Seminar

RAINBOW STRUCTURES VIA ALGEBRAIC TOPOLOGY

Zilin Jiang

MIT

Time: 16:00-17:00, Wednesday, June 5, 2019

Venue: Room 106, Shanghai Center for Mathematical Sciences

Abstract: Given a (finite) family of structures, is it possible to choose an element from each structure to form a new structure of the same kind? This new structure is poetically called rainbow for we can think of each given structure is in a different color. Some longstanding combinatorial problems, such as transversals in a Latin square and the Caccetta--Haggkvist conjecture, are rainbow in nature. In this talk, we will discuss a line of attacks to such problems via algebraic topology.