Special Lagrangians and Bridgeland Stability Conditions

Goncalo Oliveira

Universidade Federal Fluminense

galato97@gmail.com

Jason Lotay

Oxford University

Jason.Lotay@maths.ox.ac.uk

Building on conjectures of Richard Thomas and Shing-Tung-Yau, together with the definition of Bridgeland stability conditions, Dominic Joyce proposed to use Lagrangian mean curvature flow to "decompose" certain Lagrangian submanifolds into a combination of special Lagrangians. I will report on joint work in progress with Jason Lotay to prove parts of Joyce's program for certain symmetric hyperKahler 4-manifolds. Our work provides concrete geometric interpretations for many algebraic notions related to Bridgeland stability conditions.