ICTS Seminar

Title : Stuart-type exact solutions with embedded point vortices

Speaker : Vikas Krishnamurthy, Erwin Schrodinger Institute, Vienna

Date : Thursday, May 23, 2019

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : We present a new family of exact solutions to the planar steady incompressible Euler equation. The solutions comprise of a point vortex pair of equal circulation embedded in a smooth sea of non-zero vorticity of 'Stuart-type'. The solution is one of the simplest examples of a rich and diverse array of similar global equilibria of the Euler equation which are currently being identified. Examining limiting values of these new Stuart-type point vortex equilibria results in a novel family of smoothly deformable asymmetric point vortex equilibria in an otherwise irrotational flow.