



# UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

## COLLOQUIUM

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**Helena Nussenzveig Lopes**  
(University of Campinas)

"The singularity problem for the incompressible Euler equations"

**Abstract:**

The incompressible Euler equations are a model for ideal fluid flow, that is, nearly inviscid flow. These equations were derived by L. Euler in 1757 and, despite all efforts, many fundamental questions remain unanswered. In particular, it is not known whether solutions to the incompressible Euler equations with smooth initial velocity remain forever smooth or whether they develop a singularity. In this talk I will survey some of the analysis which has been carried out on this problem and discuss the state of the art.

**Wednesday, October 19<sup>th</sup>, 2011**

**Surge 284**

**4:10-5:00pm**

*Tea Time at 3:40pm*