

UNIVERSIDADE FEDERAL DE SÃO CARLOS  
DEPARTAMENTO DE MATEMÁTICA

COLÓQUIOS DO DM-UFSCAR

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Falará sobre

## On Analysis of Integrable Evolution Equations

In this talk we shall consider questions of existence, uniqueness, dependence on initial data, and regularity of solutions to the Cauchy problem of Camassa-Holm and related integrable equations in a variety of function spaces. Some of these equations can be thought as “toy” models for the Euler equations governing the motion of an incompressible fluid, and the analytic techniques developed for these equations have been in some cases transferable to the Euler equations. In particular, we shall discuss the phenomena of norm-inflation and non-uniqueness that arise when attempting to prove well-posedness for these equations with low regularity data. Also, we shall discuss results about the persistence of radius of spatial analyticity when the initial data are analytic. The talk is based on work in collaboration with C. Kenig, C. Holliman, G. Petronilho and R. Barostichi.

Data: 31 de julho de 2019  
Horário: 16h  
Local: Auditório do DM