

UFSCar

DEPARTAMENTO DE MATEMÁTICA

COLÓQUIO

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Falará sobre:

**Regular Shock Reflection for Potential Theory.
Optimal Regularity for General Pressure Laws.**

Resumo. We extend to general pressure law, the results of (existence of solutions) Chen-Feldman [2] and (regularity) Bae-Chen-Feldman [1] obtained for polytropic gas, related to the study of regular reflection when a plane shock hits a wedge head. The general pressure law proposed encompass the polytropic gas, the isothermal case and also the Chaplygin gas, which has taken many attention recently, see Serre [3,4].

[1] Bae, M., Chen, G.-Q. Feldman, M., Regularity of solutions to regular shock reflection for potential flow, *Invent. Math.*, 175, (2009), 505-543.

[2] Chen, G.-Q. Feldman, M., Global solutions of Shock Reflection by Large- Angle Wedges for Potential Flow, *Annals of Mathematics*, 0, (2006), 1-108.

[3] Serre, D., Multidimensional Shock Interaction for a Chaplygin Gas, *Arch. Rational Mech. Anal.*, 191, (2009), 539-577.

[4] Serre, D., Irrotational flows for Chaplygin Gas. Conical waves, pre-print, (2010), 1-16. .

DATA: 05/09/2012 HORÁRIO: 16:00 Hs
LOCAL: Sala 20 (DM - UFSCar)