

## Session 31, PDE Methods in Continuum Mechanics

Wednesday 18, Room 201

- 19:00–19:30 **Free boudary problems for operators with variable coefficients: regularity**  
Sandro Salsa
- 19:30–20:00 **A free boundary problem from nonlocal combustion**  
Claudia B. Lederman

Thursday 19, Room 201

- 11:30–12:00 **Homogenization in free boundary problems**  
Ki Ahm Lee
- 12:00–12:30 **Free boundary regularity**  
Henrik Shahgholian
- 13:00–13:30 **Explicit solutions of the denoising problem in image processing**  
Vicent Caselles
- 15:30–16:00 **Harnack inequality and *spectral instantaneous and complete* blow-up for some parabolic equations related to**  
Ireneo Peral Alonso
- 16:00–16:30 **Comparison principles for viscosity solutions of equations generated by vector fields**  
Juan J. Manfredi
- 16:30–17:00 **Functionals with non standard growth and regularity of minimizers**  
Giuseppe Mingione
- 17:30–18:00 **The total variation flow wit measure Initial data**  
José M. Mazón Ruiz
- 18:30–19:00 **Thermal avalanche for blow-up solutions of semilinear heat equations**  
Fernando Quirós Gracián
- 19:00–19:30 **On the quenching set for a fast diffusion equation. Regional quenching**  
Arturo de Pablo Martínez
- 19:30–20:00 **Nonlinear diffusion equation and free boundaries**  
Juan Luis Vázquez Suárez

Saturday 21, Room 201

- 08:30–09:00 **On thermo-elasticity with second sound**  
Salim Messaoudi
- 09:00–09:30 **Capillarity driven spreading of power-law fluids**  
Marco Antonio Fontelos López
- 09:30–10:00 **Ostrovsky equation, special functions and long -time asymptotics**  
Vladimir Varlamov
- 10:00–10:30 **Anisotropy and microstructure**  
Nicholas Alikakos
- 10:30–11:00 **Sobolev gradients and variational problems**  
John W. Neuberger