

# Soft.Matter@PT 2015

**Catarina R. Leal**

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**Expertise:** Soft matter: mechanical properties of complex systems

	Colloids	Liquid Crystals	Polymers and Gels	Interfaces, surfactants	Foams, emulsions	Granular materials	Biological	Other (specify)
Experimental		✓	✓	✓			✓	
Computacional								
Theoretical								

## Description of expertise:

- Rheological characterization of complex systems
- Modeling of viscoelasticity

## Selected Publications (max 5):

- "Living bacteria rheology: Population growth, aggregation patterns, and collective behavior under different shear flows", Physical Review E 90 (2014) 022720.
- "Real-time rheology of actively growing bacteria", Physical Review E 87 (2013) 030701(R).
- "Electrorheology study of a series of LC cyanobiphenyls: experimental and theoretical treatment", Liquid Crystals 39 (2012) 25.
- "Reversible Photorheology in Solutions of Cetyltrimethylammonium Bromide, Salicylic Acid and trans-2,4,4'-Trihydroxychalcone", Langmuir 26 (2010) 16715.
- "Electrorheological study of the nematic LC 4-n-heptyl-4-cyanobiphenyl: experimental and theoretical treatment", Liquid Crystals 37 (2010) 1305.