

# Colóquio de Física

CFUM, LIP-Minho, DF

Quarta-Feira, 28 de fevereiro às 15h

Anfiteatro de Física, Escola de Ciências, Gualtar

## Thermo-magnetic phenomena and the Brazil-Portugal collaboration in the field of spintronics

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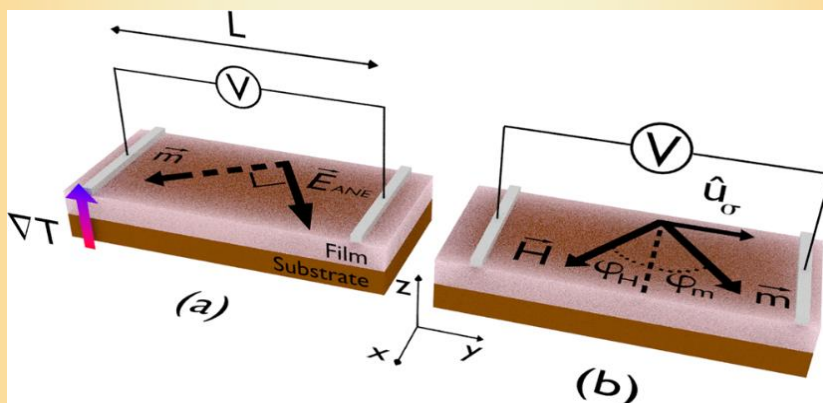


Figure: Experimental setup configuration for thermos-magnetic measurements.

### Resumo:

In recent years, spintronics has been attracting the attention of the scientific community due to two main factors. First, spintronics helps us understand nanostructured magnetic systems at the microscopic level. Studies of phenomena such as Giant Magnetoresistance and magnetization dynamics in this system have led to the development of important theories to understand matter. Second, spintronic phenomena have great potential for technological applications. Phenomena like the Spin-Seebeck Effect have significant appeal for applications in clean energy conversion systems in ferromagnetic systems. All these points make the study of spin-based effects an interesting playground for future research. In this seminar, I will discuss new thermo-magnetic phenomena and how they can assist us in developing systems for clean energy generation in the industry. I will present recent results obtained through collaboration between the Federal University of Rio Grande do Norte and the University of Minho, where international cooperation projects have been bearing fruit for both countries, both in the training of human resources and in the scientific output of the involved groups.