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# SÉMINAIRE

## Vendredi 13 mai, 11h

*Salle de Conférence, 4ème étage, Tour 22-23, Salle 1  
IMPMC, Université P. et M. Curie, 4, Place Jussieu, 75005 Paris*

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## SPIN-STATE-RELATED TRANSPORT IN COBALT OXIDES

As is well known, a trivalent cobalt ion  $\text{Co}^{3+}$  can take three spin states, so-called the low-, intermediate-, and high-spin states. The spin states undergo a transition or crossover in some cobalt oxides, which simultaneously change their transport properties as well as the magnetic properties.

In this talk, I will show how the spin state modifies the resistivity and thermopower in doped  $\text{La}(\text{Co},\text{Rh})\text{O}_3$  and  $\text{Sr}_3\text{YCo}_4\text{O}_{10.5}$ .

Part of my talk is published as listed below, and some new unpublished results will also be discussed.

References :

Terasaki et al., *Materials* **3** (2010) 786-799

Nakao et al., *J. Phys. Soc. Jpn.* **80** (2011) 023711