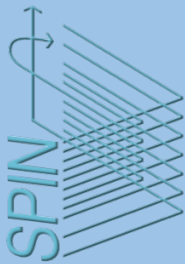


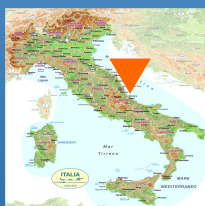
OPENING: Senior Post-doc Position



Consiglio
Nazionale
delle
Ricerche

Institute for
Super-
conducting
and
innovative
materials and
devices

(CNR-SPIN,
Chieti)



**One Senior Post-doc position (1+1 year) focused on
“MODELLING OF 2D FERROIC MATERIALS”
available in the group of
Dr. Silvia Picozzi (CNR-SPIN Chieti, Italy).**

Topic: Inspired by the global thrust towards miniaturization and by the ubiquitous research in 2D-materials, the activity will focus on the **modelling of ferroelectrics, ferromagnets and multiferroics towards the 2D limit**. Materials of interest will range from few layers of CMOS-compatible ferroelectrics (HfO_2) to 2D-chalcogenides (SnTe , GeTe) to 2D magnets (CrI_3 , NiI_2 ,...). **First-principles simulations** will be performed, aimed at fundamental understanding of **microscopic mechanisms** and **materials optimization for applications**. **Machine learning** approaches, based on **high-throughput simulations**, will also be applied.

Funding: The position will be funded by a PRIN-MIUR project called **“TWEET: ToWards fErRoElectricity in Two-dimensions”**, headed by Dr. S. Picozzi and with project partners: CNR-SPIN Napoli (Dr. F. Miletto Granozio), Politecnico di Milano (Dr. C. Rinaldi), Univ. Napoli (Dr. A. Rubano)

Salary: Around 2.000 Euros/month (net), depending on the candidate experience

Duration: 1 year, renewable for an additional year depending on the first year research outcome.

Start: Fall 2021

Location: the activity will be carried out at CNR-SPIN @ University of Chieti (Italy)

Required Expertise: Multiyear (i.e. at least two years after PhD) experience as postdoc, documented by scientific publications. A PhD in Physics, Chemistry, Materials Science or related disciplines is needed. Extensive experience in first-principles simulations is mandatory; previous research activity in either magnetism or ferroelectricity or correlated materials is also needed.

Collaborations: The research activity will be carried out in close collaboration with TWEET experim. partners and with researchers @NFFA-Trieste Infrastructure (Elettra Synchrotron, Trieste).

Contacts: please contact Dr. Silvia Picozzi via email at silvia.picozzi@spin.cnr.it by sending your CV and list of publications. Use as e-mail subject: **“TWEET Senior Postdoc Application 2021”**

Further info: <https://sites.google.com/site/silviapicozzi/>