



Contribution ID: 162

Type: **Poster**

## Fingerprints of orbital physics in RIXS

*Friday, 16 September 2011 12:21 (2 minutes)*

Resonant Inelastic X-ray Scattering (RIXS) has become nowadays one of the main experimental techniques to investigate elementary excitations in strongly correlated materials, and above all, cuprates. We describe a simple way to analytically calculate the scattering intensities in the case of copper L edge in the single ion picture. We use this result to obtain the scattering intensities of spin waves in systems with different orbital ground states. It occurs that even in this case, RIXS intensities behave differently depending on the type of orbital order.

### Please specify poster or talk

Poster

### Please specify the session

RIXS

**Primary author:** Dr MARRA, P (IFW Dresden, Dresden, 01069, Germany)

**Co-authors:** Dr VANDEN BRINK, J (IFW Dresden, Dresden, 01069, Germany); Dr WOHLFELD, K (IFW Dresden, Dresden, 01069, Germany)

**Presenter:** Dr MARRA, P (IFW Dresden, Dresden, 01069, Germany)

**Session Classification:** Poster session II and lunch

**Track Classification:** Poster Session II (Friday)