

Prof. Takafumi Miyanaga - Visiting professor Program of activity

Prof. Takafumi Miyanaga, of Hirosaki University, has an internationally recognized experience of experimental and theoretical activity in the field of EXAFS spectroscopy, concerning both fundamental aspects and applications to materials science.

For a number of years the interest of prof. Miyanaga for the fundamental aspects concerning the thermal effects on EXAFS has been matched to the scientific activity of the X-ray Laboratory of the Physics Department of Trento, and in particular of the proposer P. Fornasini.

The common interest is testified by the repeated invited visits of P. Fornasini to Hirosaki and Chiba (2006, 2009 e 2012).

The stay of prof. Miyanaga in Trento for a relatively long period (1 month) will give the opportunity to the X-ray Laboratory to establish a cooperation on new research topics. In particular, the know-how gained by both parties for the interpretation of EXAFS in bulk materials will be exploited for applications of EXAFS spectroscopy to the study of nano-structured materials, possibly affected by interesting magnetic properties.

Prof. Miyanaga will give talks to researcher and students on the following topics:

- a) Quantum Statistical Calculations for Debye-Waller Factor in XAFS
- b) X-ray Magnetic Circular Dichroism
- c) Nanometer-Scale Sciences and Technology