

Project acronym: MULTIMAT  
Project ID (6 digits): 505226  
Project Participant: Institute of Physics of the ASCR, v.v.i.

**Personal information**

Name: MALARD  
First name: Benoît  
Nationality: French  
Previous place of work: Institut Laue Langevin/ E.S.R.F. at Grenoble (France)

**Stay in the network**

Start date: 20/09/2007  
Duration: 12 months  
Category: ER  
Place: Prague  
Country: Czech Republic

Previously, I was employed by the Institute Laue Langevin (I.L.L - Diffraction Group) and the European Synchrotron radiation Facility (E.S.R.F - Materials Science Group). I was then PhD student working on the: *Multi-scale analysis of the mechanically-induced martensite phase transformation in the CuAlBe shape memory alloys – Set-up of in situ multi-scale analysis by synchrotron radiation and neutron diffraction.*

I was responsible to provide experimental input which will be used to test existing micromechanics models on a wider range of length scales. My results will help to extent and improve these models in future.

I started 6 months ago as Experienced Researcher within the Multimat framework in following diffraction studies (X-ray, synchrotron and neutron) on Shape Memory Alloy and SMA applications.

- i) **Stress distribution in steel sheet around active NiTi inserts**
- ii) **In situ study of thin NiTi wire shape setting by high energy X-Ray diffraction**

Because this involve is relatively new I cannot provide important feedback of my experience in the Multimat network. Nonetheless I would like to mention that being part of the network strongly influenced my decision to apply to the position. The possibility to take part on different experiments, conferences and workshops is a great advantages to collaborate with complimentary and transdisciplinary researchers.