

# Neutron Optics JRA

## McStas – User discussion Determination of the partners needs

Barcelona 10<sup>th</sup> of May 2010.

A discussion of requested features in McStas was held during the NMI3 general assembly between the Neutron Optics JRA partners.

This corresponds to the **Milestone 17.4.1.1**

- Problem with time evolution (T. Panzner)  
A time resolution of 1E-10 min is required  
To be done
- Handling polarization  
VITESS fully implements the handling of polarization  
Some components could be reused in McStas  
A lot of testing is required to properly validate the components
- Gravity is a constant value  
Can be made variable for testing purpose
- How easy is the conversion of components from VITESS to McSTAS?  
Not too hard
- Is it possible to implement new optimizers  
For example to plug in the routines developed by Phil Bentley  
YES, to be discussed with E. Fahri
- No bent monochromator available in McStas (only approximation)  
to be done but non trivial
- Is it possible to reuse routines written by K. Andersen for multichannel guides?  
YES (under discussion)
- Create Metacomponent (P. Willendrup)  
Peter Willendrup gave a presentation providing a method to create “Metacomponents” from simple existing components.  
The procedure should be slightly improved to handle in a more general way the interaction between components.  
The technique will be documented in future releases of McStas. A publication on this issue is under preparation.
- It is possible to handle Prisms within McStas (T. Krist)
- 1 year roadmap for McStas
  - new optics
  - “Metacomponents”
  - components programming made easier
  - Perl replaced by Python