<table>
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<tr>
<th>Time</th>
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<tr>
<td>08:30 - 09:00</td>
<td>Registration</td>
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<tr>
<td>09:00 - 09:10</td>
<td>Welcome</td>
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<td><strong>Session 1: Presentations</strong></td>
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| 09:10 – 09:35| The general purpose Monte Carlo code MCSHAPE: main features and recent developments  
Viviana Scot  
Università di Bologna, Italy |
| 09:35 - 10:00| Fixed forced detection for accelerating the simulation of X-ray images with Geant4  
Simon Rit  
CREATIS, Villeurbanne, France |
| 10:00 – 10:25| A Monte Carlo simulation tool based on PENEOPE for imaging plate performance investigation  
Min Yao  
INSA - LYON |
| 10:25 – 10:50| Virtual imaging X-ray experiments using McXtrace  
Erik Knudsen  
Technical University of Denmark |
| 10:50 - 11:10| Coffee break                                                         |
|              | **Session 2: Presentations**                                         |
| 11:10 – 11:35| Use of Monte Carlo simulations for Cultural Heritage XRF analysis  
Antonio Brunetti  
Università di Sassari, Italy |
| 11:35 – 12:00| The processing of large, heterogeneous data sets acquired for XRF imaging  
Matthias Alfeld  
DESY Hamburg, Germany |
| 12:00 – 12:25| Determination of gold leaf thickness by realistic Monte Carlo simulations of an EDXRF spectrometer: application to a renaissance illumination  
Jorge Sampaio  
Universidade de Lisboa, Portugal |
| 12:25 – 12:50| Development and applications of Monte Carlo based XRF quantification protocols for the elemental analysis of meteoritic materials  
Stephen Bauters  
Ghent University, Belgium |
| 12:50 - 14:00| Lunch                                                                |
| 14:00 - 14:50| A general introduction to Monte Carlo simulations of X-ray spectroscopy and imaging experiments  
Laszlo Vincze  
Ghent University, Belgium |
| 14:50 - 15:50| Introduction to xraylib (presentation + hands-on)  
Tom Schoonjans  
Università di Sassari, Italy |
| 15:50 - 16:10| Coffee Break                                                         |
| 16:10 - 17:50| Introduction to XMI-MSIM (presentation + hands-on)  
Tom Schoonjans  
Università di Sassari, Italy |
| 17:50 - 18:30| Discussion                                                           |
| 19:00 - 21:00| Wine & Cheese Party                                                 |
# Monte Carlo simulation tools for X-ray imaging and fluorescence Workshop

24 & 25 February 2014, ESRF Auditorium

## Tuesday 25 February 2014

<table>
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<tr>
<th>Time</th>
<th>Session 3: Presentations</th>
<th>Session 4: Presentations</th>
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| 09:00 - 09:25 | A Monte Carlo simulation of confocal X-ray fluorescence experiment | Charalambos Zarkadas  
                          PANalytical, Almelo, NL                                    |
| 09:25 - 09:50 | The Monte Carlo Simulation of Diffraction Enhanced Imaging of Lung Tissue Model | Sara Lim  
                          Ohio State University, USA                                   |
| 09:50 - 10:15 | Modeling x-ray phase-contrast imaging of microbubbles | Nikita Vakula  
                          IAEA, Seibersdorf, Austria                                     |
| 10:15 - 10:40 | Application of a Monte Carlo code to the characterization of novel X-ray imaging systems | | |
| 10:40 - 11:00 | Coffee Break                                    | 11:00 - 11:25  
                          A single Monte Carlo program for multiple XRF studies | V. Armando Solé  
                          ESRF, Grenoble - France                                          |
                          A Tool for GiXRF/XRR simulation and data analysis | |
| 12:15 - 14:00 | Lunch                                           | 12:15 - 14:00  
                          Lunch                                                          | |
| 14:00 - 15:50 | Introduction to quantification with XMI-MSIM and PyMca (presentation + hands-on) | 15:50 - 16:10  
                          Coffee Break                                                     | |
| 16:10 - 19:00 | Introduction to XRMC (presentation + hands-on)   | 19:00  
                          End of the workshop                                               | |
| 19:00       |                                                 |                                                               |