



## Registration Form

# Battery Modeling & Advanced Numerical Simulation School – BATMAN

**Amiens – July 4<sup>th</sup> (13.15 pm) to July 8<sup>th</sup> (12 pm)**  
**Laboratoire de Réactivité et Chimie des Solides**

To **apply** please complete the following information and send this file by e-mail to [alefra@u-picardie.fr](mailto:alefra@u-picardie.fr) and [anne.charbonnier@u-picardie.fr](mailto:anne.charbonnier@u-picardie.fr) before May 31<sup>st</sup>, 2016.

<b>First Name :</b>	
<b>Surname :</b>	
<b>Laboratory or Company :</b>	
<b>Position :</b>	
<b>e-mail address :</b>	

**PLEASE NOTE THAT DUE TO THE LIMITATION IN THE NUMBER OF PARTICIPANTS,  
FINAL ACCEPTANCE IS DECIDED BY THE ORGANIZERS.**

**Max. number of participants: 20**

**Registrants should bring to the school their own laptops. The hands-on sessions  
will use freeware provided by the lecturers.**

**Registration Fee: 450€ (Fees cover: participation to lessons, coffee break, lunches  
and diner on Thursday).**



## Tentative Program

**Introduction to the modeling and simulation of rechargeable batteries.**

**Porous electrodes theories, materials, structure, function, and operation.**

**Density Functional Theory approaches.**

**Kinetic Monte Carlo approaches.**

**Molecular Dynamics approaches.**

**Continuum modeling.**

**Multi-scale modeling.**

**Numerical methods.**

**Parallel and High Performance Computing, optimization of codes.**

**Application to lithium ion, air, sulfur, redox flow batteries: intercalation and conversion materials, electrolytes, transport, electrochemical processes, aging, fabrication processes.**