



Fall School

“Modelling of Corrosion”

INSTN CEA Saclay, October 26-30, 2015

- An introduction to Corrosion Mechanisms
- Overview on Phase Diagrams
- Introduction to DFT and KMC Methods
- Atomistic Simulation of Diffusion
- Atomistic Simulation of Corrosion
- Corrosion from first principles methods
- Modelling of Corrosion by Cellular Automata
- Point Defect Model
- DPCM Model
- Passive Layer Growth, Nanostructure and Localized Corrosion
- Localized Corrosion
- Flow accelerated Corrosion
- Stress Corrosion Cracking
- Modelling of Inter-granular Corrosion
- Atmospheric Corrosion
- Cathodic Protection
- Multiscale Modelling of Materials
- Multiscale Contribution on Corrosion Prediction

Computer Sessions using relevant softwares:

- Phase Diagrams - Thermo-Calc
- DFT and KMC modelling of oxidation
- Localized Corrosion
- Cellular Automata
- DPCM Model
- Point Defect Model

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Registration deadline: September 15, 2015

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