

## Winter School

# “Modelling of Corrosion”

INSTN - CEA Saclay, January 28 - February 1<sup>st</sup>, 2019

- Preliminary conferences and speakers. Slight modifications might be expected for the final schedule.

- An introduction to Corrosion
- Overview on Phase and Pourbaix Diagrams
- Atomistic modelling of corrosion
- Modelling of Corrosion by Cellular Automata
- Point Defect Model
- DPCM Model
- High temperature oxidation
- Corrosion data mining & neuronal network
- Localized Corrosion
- Flow accelerated Corrosion
- Rebar corrosion modeling
- Stress Corrosion Cracking
- Modelling of Inter-granular Corrosion
- Atmospheric Corrosion
- Cathodic Protection
- Corrosion Modelling and Safety Management
- Multiscale Contribution on Corrosion Prediction

- D. FERON**, CEA-DEN, Saclay, France
- C. GUENEAU**, CEA – DEN, Saclay, France
- B. DIAWARA**, ENSCP Chime ParisTech, France
- L. VAN BRUTZEL & A. CHARTIER**, CEA-DEN, Saclay
- D. DI CAPRIO**, ENSCP Chime ParisTech, France
- D. MACDONALD**, University of California Berkeley, USA
- C. BATAILLON**, CEA-DEN, Saclay, France
- C. DESGRANGES, L. MARTINELLI**, CEA-DEN, Saclay
- M. URQUIDI-MACDONALD**, Penn State University, USA
- R. OLTRA**, Université de Bourgogne, France
- S. TREVIN & E. GIPON**, EDF, France
- V. L’HOSTIS**, CEA-DEN, Saclay, France
- T. COUVANT**, EDF, France
- B. GWINNER**, CEA-DEN, Saclay, France
- J. DE LAMARRE**, CEA - DEN, Saclay, France
- A-M GROLLEAU**, Naval Group, France
- Y. WATANABE**, Tohoku University, Japan
- D. FERON**, CEA-DEN, Saclay, France

### Computer Sessions using relevant software:

- Atomistic modelling of Corrosion - oxidation
- Localized Corrosion
- EKINOX model
- DPCM Model
- Point Defect Model
- BRT-CICERO (FAC code)

- B. DIAWARA**, ENSCP, **L. Van BRUTZEL, A. CHARTIER**, CEA
- R. OLTRA & B. VUILLEMIN**, Université de Bourgogne
- C. DESGRANGES & L. MARTINELLI**, CEA-DEN, Saclay
- C. BATAILLON**, CEA-DEN, Saclay
- D. MACDONALD**, University of California Berkeley  
& **M. URQUIDI**, Penn State University, USA
- S. TREVIN & E. GIPON**, EDF

### Organizers:

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**Registration on-line: [www.mse-chair.org](http://www.mse-chair.org)**

**Registration deadline: December 7, 2018**

