

# Program

## NANOCEM KNOWLEDGE TRANSFER WORKSHOP

### “ADMIXTURES”

Scientific committee:

Dr. Marta Palacios (IETcc)  
Prof. Dr. Robert J. Flatt (ETHZ)

Objective:

Leading experts will give lectures on relevant scientific and technological aspects of concrete admixtures, including their fundamental working mechanisms, latest research performed on the topic and identification of future research needed to solve main issues.

Monday, April 8, 2019

- 13:30 – 13:45: Welcome  
Dr. Marta Palacios – Eduardo Torroja Institute for Construction Materials – IETcc-CSIC (Spain)
- 13:45 – 14:15: Insights on the working mechanism and efficiency of grinding aids and cement improvers  
Dr. Emmanuel Gallucci – Sika AG (Switzerland)
- 14:15 – 14:45: Retarders for cement hydration  
Dr. Patrick Juilland – Sika AG (Switzerland)
- 14:45 – 15:15: A summary of the principal results obtained within the CP12, CP15 and other projects on organic admixtures: From experiments to simulations and vis versa  
  
Dr. Christophe Labbez – Université de Bourgogne (France)

*Coffee break: 15:15-15:45 h \_ posters*

- 15:45 – 16:15: Current Status and Future Perspectives of PCE superplasticizers  
Dr. Lei Lei – Technical University of Munich (Germany)

- 16:15 – 16:45: Characterization of PCEs and the issue of polydispersity  
Dr. Giulia Gelardi – ETHZ (Switzerland)
- 16:45 – 17:15: Impact of PCE superplasticizers on cement hydration  
Dr. Delphine Marchon – Berkeley University (USA)
- 17:15 – 17:45: Effect of D-gluconate on nucleation and growth of synthetic C-S-H. Evaluation of the kinetics using population balance modelling.  
Prof. Dr. Paul Bowen – EPFL (Switzerland)

*Dinner: 19:15-21:30 h*

## Tuesday, April 9, 2019

- 9:00 – 9:30: Flow loss of admixed cementitious materials  
Prof. Dr. Robert J. Flatt – ETHZ (Switzerland)
- 9:30 – 10:00: Rheological features of dispersed cementitious suspensions  
Dr. Pascal Boustingorry - CHRYSO (France)
- 10:00 – 10:30: Influence of PCEs on cement hydration at high temperature  
Dr. Marta Palacios – IETcc-CSIC (Spain)

*Coffee break: 10:30 – 10:50 h \_ posters*

- 10:50 – 11:20: Admixtures compatibilities  
Dr. Alex Rieder – GCP Applied Technologies (USA)
- 11:20 – 11:50: Negative impact of Different Clay Minerals on PCE and Mitigation Strategies  
Dr. Lei Lei – Technical University of Munich (Germany)
- 11:50 – 12:20: Organic admixtures and cement particles: Competitive adsorption and its macroscopic rheological consequences.  
Dr. Hela Bessaies-Bey \_ IFSTTAR (France)

*Lunch: 12:20 – 13:30 h*

- 13:30 – 14:00: Accelerating admixtures  
Prof. Dr. Harald Justnes – SINTEF Building and Infrastructure (Norway)
- 14:00 – 14:30: Modification of cement hydration kinetics through acceleration/activation  
Dr. Vanessa Kocaba - CHRYSO (France)
- 14:30 – 15:00: Corrosion inhibitors  
Prof. M<sup>a</sup> Cruz Alonso – IETcc-CSIC (Spain)
- 15:00 – 15:30: Admixture and Sustainability  
Dr. Alex Rieder – GCP Applied Technologies (USA)
- 15.30: Closing the workshop