

# THE CORVALLIS WORKSHOPS

Concrete Fit for Purpose and Planet – June 22-24, 2022

## **Evening Welcome Reception June 21** **CH2M HILL Alumni Center 5:00-6:30 pm**

### **Session 1: Binders (Morning June 22) 8:30-12:00 pm**

Moderator: Jason Ideker

#### **Talks**

- Jason Ideker – Welcome and Opening Remarks
- Karen Scrivener - École Polytechnique Fédérale de Lausanne  
*Reaching Net Zero for Construction*
- Farshad Rajabipour – Pennsylvania State University  
*Evaluation and Beneficiation of High-SO<sub>3</sub> Fly Ash as Concrete SCM*
- Somayeh Nassiri – Washington State University  
*Biobased nanofibers and nanocrystals from chitin and cellulose for stronger cementitious materials*
- Sarah Williams - University of Colorado Boulder  
*Photoautotrophic Biomineralizing Microalgae as Alternative SCMs*
- Ogulcan Canbek – Georgia Institute of Technology  
*A Quantitative Approach to Determining Sulfate Balance for LC3*



#### **Poster Pitches**

- Danielle Beatty - University of Colorado Boulder  
*Biogenic Limestone as a CO<sub>2</sub>-Storing Filler for Portland Cement Concrete*
- Anuj Parashar – Oregon State University  
*Title TBD*

***We will have a midway break in each session for refreshments***

### **Lunch: 12:00-1:30 pm**

### **Session 2: Concrete/Pre-Cast (Afternoon June 22) 1:30 – 5:00 pm**

Moderator: Karen Scrivener

#### **Talks**

- Matthew Adams – New Jersey Institute of Technology  
*Local and State Policy Options for Overcoming Barriers to Procurement of Low Embodied Carbon Concrete*
- Tarek Khan – Master Builders® Solutions  
*Mix Design Development to be Fit for Purpose*
- Burkan Isgor – Oregon State University  
*Advances in Reactive-Transport Modeling Of Cementitious Systems to Study Durability and Sustainability Of Reinforced Concrete Structures*
- Thanos Drimalas – The University of Texas at Austin  
*Exceeding the Limits with Portland Limestone Cements and Recycled Concrete*
- Anthony Bentivegna – Durability Engineers  
*Title TBD*

#### **Poster Pitches**

- Xijun Shi  
*Evaluation of Reclaimed Asphalt Pavement based Cementitious Materials*

### **Conference Dinner at Common Fields, Downtown Corvallis (Evening June 22) 6:30 pm**

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## **Group Hike/Free Time (Morning June 23)**

**Depart from CH2M Hill Alumni Center 8:30 am**

**Lunch: 12:00-1:30 pm**

## **Session 3: Durability/LCA (Afternoon June 23) 1:30 - 5:00 pm**

*Moderator: Matthew Adams*

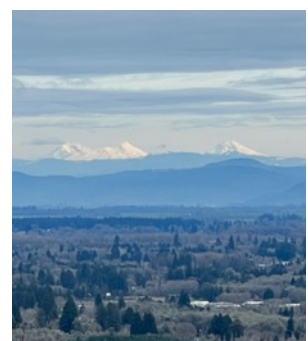
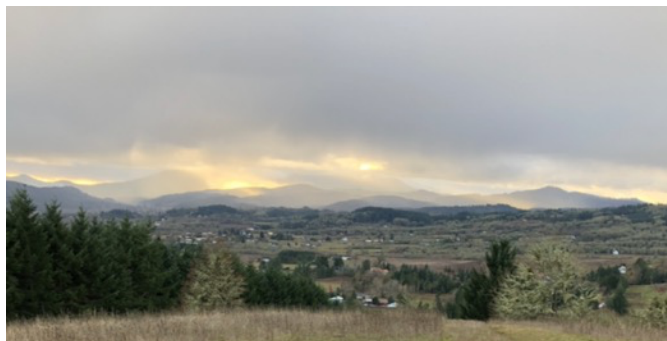
### **Talks**

- Brad Pease - COWI North America Ltd.  
*Practical Considerations of Service Life Design: Bridging the Gaps from Service Life Design Codes to Realities of Construction*
- Sabbie Miller – University of California Davis  
*Deep Decarbonization of Cement and Coupled Effects on other Environmental Impacts*
- Federico Aguayo – University of Washington  
*Influence of Relative Humidity and CO<sub>2</sub> Concentration on the Carbonation of Alternative Cementitious Binders*
- Ueli Angst – ETH Zürich  
*No Net-zero without Long-term Corrosion Predictions: a Pore-scale Perspective on Relevant Processes*

### **Poster Pitches**

- Kiran Ram Porikam Poil – University of Zagreb  
*Chloride Penetration Resistance of High-performance Concrete Based on Limestone-calcined Clay*
- Matea Flegar – University of Zagreb  
*Durability Assessment Across Different Exposure Classes of Normal Strength Calcined Clay Concrete*
- Zhanzhao Li - Pennsylvania State University  
*Kinetics of Iron Sulfide Oxidation in Simulated Concrete Pore Solution*
- Sylvia Kessler - Helmut-Schmidt-University  
*Value of Information of Corrosion Assessment Methods in Reinforced Concrete Structures*
- Matt Jungclaus – University of Colorado Boulder  
*Modeling the Theoretical CO<sub>2</sub> Sequestration of Portland Cement Concrete*
- Gopakumar Kaladharan - Pennsylvania State University  
*Mitigation of Alkali-Silica Reaction in Concrete Using Novel pH Reducing Admixtures*

***We will have a midway break in each session for refreshments***



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## **Session 4: Design/Codes/Specifications (Morning June 24) 8:30 am – 12:00 pm**

*Moderator: Sabbie Miller*

### **Talks**

- Eric Giannini - Portland Cement Association  
*Building Purposefully on the Road to Carbon Neutrality*
- Bruno Fong – Kiewit Corporation  
*Title TBD*
- Mike Thomas - University of New Brunswick  
*Is the w/cm Fit for the Purpose of Durability Specifications?*
- Alexander Michel - Technical University of Denmark  
*A modelling Framework to Anticipate, Mitigate, and Adapt to the Impact of Climate Change on the Material Deterioration of Civil Infrastructure*
- Bruce King – Ecological Building Network  
*From Marin County to Sacramento to Washington: Developments in Embodied Carbon Codes and Procurement Policies.*

### **Poster Pitches**

- Darya Memon – Ghent University  
*Prediction of Low-Velocity Impact Response of RC beams*
- Michelle Helsel – Turner Fairbanks Highway Research Center  
*A Review of Cement and Concrete Sustainability Strategies and How to Quantify Them*

***We will have a midway break in each session for refreshments***

**Lunch: 12:00-1:30 pm (boxed lunch so you can stay, or grab and go!)**



2017 Corvallis Workshop Participants: Service-Life Modeling of Concrete