Building Technology Program
Special Seminar

Challenges and opportunities of interdisciplinarity : insights from human-centric building research at EPFL

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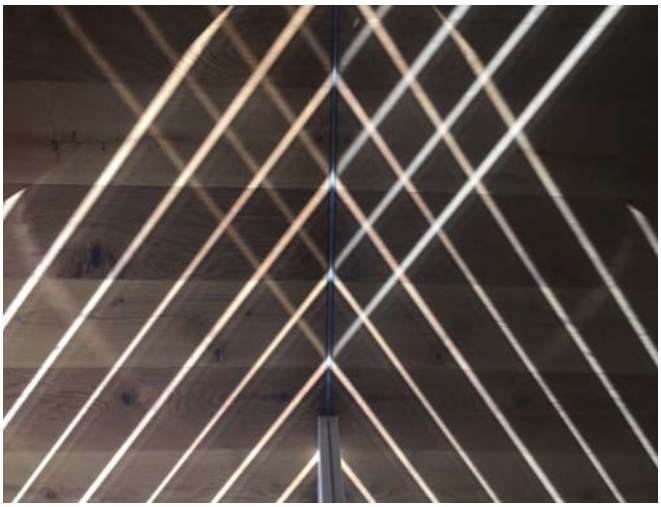
Thursday, April 6, 2017 at 12:30-1:30PM in room 1-190



Interdisciplinarity has become an inherent component of most research and education developments nowadays. It brings with it new challenges, from how to share a common language to how to avoid becoming generalists, as well as new opportunities in solving more complex problems through disciplinary complementarities. This is particularly true in building research, where a high diversity of skills, mindsets and approaches is needed to bring further advances to the field.

This talk will discuss some specific initiatives at EPFL on growing a culture of interdisciplinarity and building synergies between traditionally distinct fields, especially in relation to the built environment. To provide building designers with the means necessary to assess critical parameters in a successful design and efficiently combine qualitative and quantitative criteria in the solution search process, we need to work from what we have and from what we need. This is true at the human occupant's as much as at the urban environment's scales: the recurring question one has to address in any of these contexts is how to best balance the resources we have available (solar radiation, energy, climate, natural or built surroundings) to fulfill, at minimum and beyond, our human needs, which range from well-being and comfort, to health and emotional delight, but also to social quality.

Marilyne Andersen is Full Professor of Sustainable Construction Technologies and Dean of the School of Architecture, Civil and Environmental Engineering (ENAC) at EPFL. She is also head of the Interdisciplinary Laboratory of Performance-Integrated Design (LIPID) whose research activities focus on building performance in the architectural context in general, and the use and optimization of daylight in buildings in particular. Before joining EPFL, she was Associate Professor tenure-track at MIT where she founded the MIT Daylighting Lab in 2004. She holds a MSc in Physics and specialized in daylighting through her PhD at LESO, EPFL and as a Visiting Scholar at the Lawrence Berkeley National Laboratory, USA. She is the author of over 80 refereed scientific papers, recipient of several awards including the prestigious Daylight Research Award 2016, and is a member of the Board of the LafargeHolcim Foundation for Sustainable Construction and of the Scientific Advisory Board of the Center for Environmental Sensing and Modeling within the MIT-Singapore Alliance (SMART).

Faculty Host: Christoph Reinhart (tito_@mit.edu)