

Solar Energy and Building Physics Laboratory LESO-PB

# LESO **LUNCHTIME\*** LECTURES

Wednesday 13 February 2019, 12:15

EPFL – GR B 3 30

## High Performance Buildings and their Dependence on Light

**Prof. Kevin Houser**

Professor of Architectural Engineering at Penn State University, USA  
Editor-in-Chief of LEUKOS

**Introduction by Prof. Marilyne Andersen – Followed by open discussion**

### Summary

After introducing the role of light in high performance buildings, Prof. Houser will summarize several human factors experiments that probe indoor environment quality. Prof. Houser will emphasize optical radiation, describing how light can be manipulated as an independent variable and how behavioral and perceptual responses can be measured as dependent variables. The presentation will provide examples of novel spectra that were engineered and employed to enhance color perceptions, improve perceptions of brightness, improve the cognition and mood states of frail elders, and enhance vision under low light.

### About the speaker

Kevin Houser (PhD, PE, FIES, LC, LEED AP) is a Professor of Architectural Engineering at Penn State and the editor-in-chief of LEUKOS, the journal of the Illuminating Engineering Society (IES). He has authored or coauthored more than 125 publications about light and lighting. He's won the Chartered Institution of Building Services Engineers (CIBSE) Leon Gaster Award, the IES Taylor Technical Talent Award three times, the IES Presidential Award, and is a Fellow of IES. His recent work focuses on human perceptual and biological responses to optical radiation and the application of that knowledge to the spectral design of light sources.

**This lecture is co-organized by LESO-PB and LIPID.**

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"Future Energy Efficient Buildings and Districts" SCCER FEEB&D*



**Open to all !**

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\*Presentations are followed by drinks & snacks, to give the opportunity to guests and speaker to further discuss the topic.

