

**PHYSICAL COLLOQUIUM  
INVITATION**

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Monday, 02.07.2018, 4.15 p.m., W2 1-148

speaks

**Dr. Vladan Blahnik,  
Imaging & Optical Design Scientist,  
Carl Zeiss AG**

about

**“Designing Optical Systems for Hollywood and Silicon Valley”.**

Computer chips are the fundament of the digital world. Driven by Moore’s law, forecasting a doubling per two years of the amount of transistors on a chip, over the past forty years ZEISS developed generations of optical lithography systems to enable this continuous shrinking of integrated electronic circuits. The talk shows how application requirements are translated into lens specifications and the process of optical design. While lithography lens requirements are rigorously broken top-down from critical dimension tolerances on chip structures, artistic applications like Hollywood movie making asks for different, more ambiguous imaging characteristics. We show how professional movie lenses are designed to create artistic qualities like an appealing bokeh, small lens breathing or variable soft looks by applying optical wavefront manipulations.

All interested persons are cordially invited.

Sgd. Prof. Dr. Ulrich Teubner Hochschule Emden/Leer