

Fluids and Space Engineering Seminar

Date: Wednesday, January 15, 2020 at 13:00

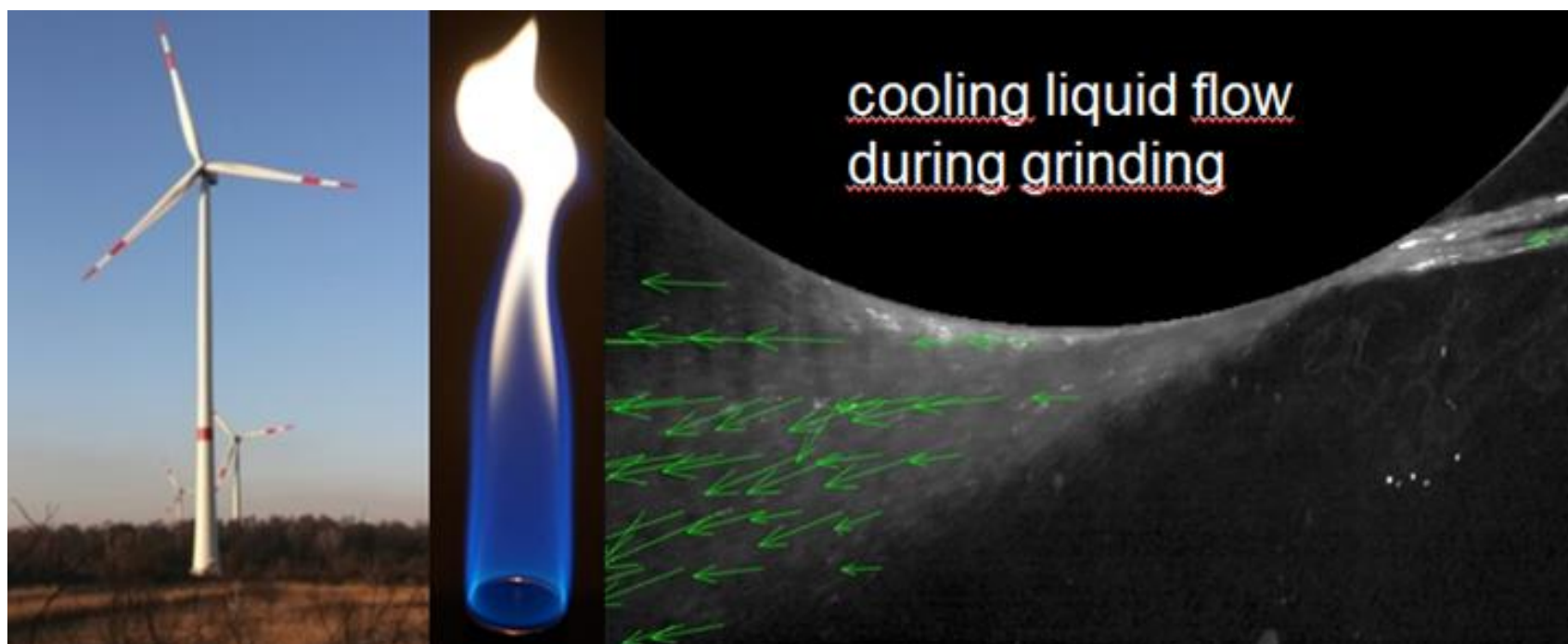
Location: ZARM, Room 1730

In-process flow measurements for wind turbines, combustion and manufacturing

Prof. Dr.-Ing. habil. Andreas Fischer

Head of the Bremen Institute for Metrology, Automation and Quality Science (BIMAQ),

University of Bremen



Topical in-process flow measurement tasks: Flow visualization for wind turbine engineering, combustion flow analysis and understanding the cooling mechanism during grinding

Optical flow measurements enable high data rates, high measurement speeds and high accuracy. In order to understand complex technical processes such as the energy harvest of wind turbines, the combustion of fuel and the manufacturing of structures, however, in-process measurements are required. The respective in-process measurement conditions are challenging and sometimes even hinder optical measurements. Based on three examples of my ongoing research, I will report on topical challenges, fundamental limits and success stories providing in-process optical flow measurements.