

# CECOST Course: Laser Imaging of Spray Systems

## November 26-30, 2018

**Location:** Room E421, Building E (the Enoch Thulin Laboratory/Combustion Physics),  
Dept. of Physics, Lund University, Professorsgatan 1, Lund.

### Monday November 26

12.00-13.30 Lunch and registration at Combustion Physics  
 13.30-15.30 Welcome and introduction Dr Sven-Inge Möller &  
Dr Edouard Berrocal  
 Expectations of the course  
 15.30-16.00 Coffee  
 16.00-17.00 Fundamental aspects of imaging Dr Edouard Berrocal

### Tuesday November 27

09.00-10.30 Cameras, lasers and optics Dr Elias Kristensson  
 10.30-11.00 Coffee  
 11.00-12.30 Artifacts in laser imaging of spray systems Dr Edouard Berrocal  
 12.30-14.00 LUNCH at "Moroten och Piskan"

14.00-14.45	Simulation 1: Gp 1&2	Instrument. lab 1: Gp 4	Visual. lab 1: Gp 3
14.45-15.30	Simulation 1: Gp 1&2	Instrument. lab 1: Gp 3	Visual. lab 1: Gp 4
15.30-16.15	Simulation 1: Gp 3&4	Instrument. lab 1: Gp 2	Visual. lab 1: Gp 1
16.15-17.00	Simulation 1: Gp 3&4	Instrument. lab 1: Gp 1	Visual. lab 1: Gp 2

### Wednesday November 28

09.00-10.30 Structured illumination-based imaging techniques Dr Elias Kristensson  
 10.30-11.00 Coffee  
 11.00-12.30 Quantitative spray imaging Dr Edouard Berrocal  
 12.30-14.00 LUNCH at "Moroten och Piskan"

14.00-14.45	Simulation 2: Gp 1&2	Instrument. lab 2: Gp 4	Visual. lab 2: Gp 3
14.45-15.30	Simulation 2: Gp 1&2	Instrument. lab 2: Gp 3	Visual. lab 2: Gp 4
15.30-16.15	Simulation 2: Gp 3&4	Instrument. lab 2: Gp 2	Visual. lab 2: Gp 1
16.15-17.00	Simulation 2: Gp 3&4	Instrument. lab 2: Gp 1	Visual. lab 2: Gp 2

### Thursday November 29

09.00-10.30 Image velocimetry & spray dynamics analysis Prof. Mark Linne  
 10.30-11.00 Coffee  
 11.00-12.30 Imaging techniques based on ultra-short pulses Prof. Mark Linne  
 12.30-14.00 LUNCH at "Moroten och Piskan"  
 14.00-16.00 X-ray imaging Prof. Mark Linne  
 18.30- Dinner and Pool at Paradis Biljard

### Friday November 30

*Coffee available*

10.00-11.00 Introduction to group assignments Dr Edouard Berrocal  
 11.00-12.00 Summary, feedback, closing remarks Dr Sven-Inge Möller  
 12.30-14.00 Farewell lunch at "Moroten och Piskan"

Simulation exercises 1: Introduction to "Multi-Scat" 2: Computer exercises Room E421	Instrumentation labs 1: SLIPI set-up 2: FRAME set-up Room E211	Visualization labs 1: Multiple scattering effects 2: Spray imaging examples Room E234
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