

APPROACHING ACOUSTICS

Friday 6/9/2019:

14:00-14:45	What is acoustics? - Monika Rychtarikova, KU Leuven
14:45-15:00	Break
15:00-16:30	Hearing - Armin Kohlrausch, TU Eindhoven
16:30-17:00	Break
17:00-18:30	Measurements / Simulations - Wim Desmet, KU Leuven

Saturday 7/9/2019:

8:30-10:00	Acoustic materials - Elke Deckers, KU Leuven
10h-10h30	Break
10:30-12:00	Musical Acoustics - Murray Campbell, Edinburgh University
12h-14h	Lunch break
14h-15h30	Room acoustics - Martijn Vercammen, Peutz Consultants
15h30-16h	Break
16h-17h30	Building Acoustics - Jens-Holger Rindel, Denmark

Sunday 8/9/2019:

8h30-10h	Ultrasonic and acoustic characterization of poro-elastic materials - Philippe Leclaire, ISAT - Univ. Bourgogne
10h-10h30	Break
10h30-12h	Final exam

Hot topic 1

Computational modeling in physiological and psychological acoustics

Friday 6/9/2019:

14h-15h30	Auditory models and their potential application in hearing technology - Torsten Dau (DTU, Lyngby)
15h30-16h	Break
16h-17h30	Student self introduction (5 min. each)

Saturday 7/9/2019:

8h30-10h	Binaural modeling - Mathias Dietz (U Oldenburg)
10h-10h30	Break
10h30-12h	Question authority: Predicting perceptual pitch phenomena with a new model based on peripheral and central physiology - Laurel Carney (U Rochester)
12h-14h	Lunch break
14h-15h30	Machine learning applications to auditory modeling - Shihab Shamma (Paris)

15h30-16h Break
16h-17h30 **Hearing loss applications of advanced auditory models - Sarah Verhulst (U Gent)**

Sunday 8/9/2019:

8h30-10h **Advances and challenges in modeling cochlear implant stimulation - Ian Bruce (McMaster U, Hamilton)**
10h-10h30 Break
10h30-12h **Final exam**

Hot topic 2

Smart city sound

Friday 6/9/2019:

14h-15h30 **Introduction to Smart city sound - Dick Botteldooren (U Gent)**
15h30-16h Break
16h-17h30 **Student self Introduction (5 min. each)**

Saturday 7/9/2019:

8h30-10h **Co-creation of urban soundscapes (including methods for getting people's opinion) - Francesco Aletta**
10h-10h30 Break
10h30-12h **Smart mobility and traffic (how to smartly organise road, rail, ...) - Arnaud Can**
12h-14h Lunch break
14h-15h30 **Urban sound mitigation (including urban barriers, buildings as noise barriers, greening) - Timothy Van Renterghem**
15h30-16h Break
16h-17h30 **Smart sound monitoring (including new technologies for measuring) Dick Botteldooren**

Sunday 8/9/2019:

8h30-10h **Urban psycho-acoustics - André Fiebig TU Berlin**
10h-10h30 Break
10h30-12h **Final exam**

Hot topic 3

Acoustic metamaterials and sonic crystals

Friday 6/9/2019:

14h-15h30 **Introduction to Brillouin zone and Plane Wave Expansion: A. Cebrecos (i3M, CSIC)**
15h30-16h Break
16h-17h30 **Student self introduction (5 min. each)**

Saturday 7/9/2019:

8h30-10h	Introduction to Multiple Scattering Theory - J.-P. Groby (LAUM, UMR CNRS 6613)
10h-10h30	Break
10h30-12h	Sonic crystals - A. Cebrecos (i3M, CSIC)
14h-15h30	Introduction to acoustic metamaterials - J.-P. Groby (LAUM, UMR CNRS 6613)
15h30-16h	Break
16h-17h30	Homogenization theory - A. Maurel (Institut Langevin, UMR CNRS 7587)

Sunday 8/9/2019:

8h30-10h	Numerical simulation and application of metamaterials in vibroacoustics E. Deckers (KU Leuven)
10h-10h30	Break
10h30-12h	Final exam

Hot topic 4**Acoustic imaging (laser, beam forming, time reversal, photoacoustics)****Friday 6/9/2019:**

14h-15h30	Beam forming, principles of acoustic camera - Michael Kerscher, GFai
15h30-16h	Break
16h-17h30	Laser doppler vibrometry applications in acoustics - Bert Roozen, KU Leuven

Saturday 7/9/2019:

8h30-10h	Recent advances in ultrasound echography - Jan D'Hooge (UZ Leuven)
10h-10h30	break
10h30-12h	Student self introduction (5 min. each)
12h-14h	Lunch break
14h-15h30	Spatially resolved acoustic spectroscopy for imaging material microstructure - Matt Clark (Nottingham)
15h30-16h	Break
16h-17h30	Picosecond ultrasonics for tomography of biological cells - Matt Clark (Nottingham)

Sunday 8/9/2019:

8h30-10h	Photoacoustic imaging for non-destructive testing - Christ Glorieux (KU Leuven)
10h-10h30	Break
10h30-12h	Final exam