

Workshop in honor of Jean-Paul Laumond (July 11, 2022)

Speakers:

Stéphane Mallat (Collège de France)
Alin Albu-Schäffer (TUM)
Daniel Andler (Sorbonne Université et ENS-PSL)
Antonio Bicchi (Pisa)
John Canny (UC Berkeley)
Justin Carpentier (Inria)
Alessandro De Luca (Sapienza)
Ken Goldberg (UC Berkeley)
Vincent Hayward (Sorbonne Université)
Matt Mason (CMU)
Katja Mombaur (Waterloo)
Céline Pieters (Vienna)
Jean Ponce (Inria)
Philippe Souères (LAAS-CNRS)
Eiichi Yoshida (Tokyo University of Science)
Session chairs:
Martial Hebert (Carnegie-Mellon University)
Steven Laval (University of Oulu)
Nicolas Mansard (LAAS/CNRS)
Nicolas Siméon

Program:

8h30 – 9h00 **Breakfast**

9h00 – 9h15 **Welcome and opening remarks**

- Stéphane Mallat

9h15 – 10h55 **Session 1** chaired by Nicolas Siméon

- Philippe Souères – The adventure of optimal paths for nonholonomic wheeled robots
- Matt Mason – How should a wheelchair think about distance? In memory of Jean-Paul Laumond
- Alin Albu-Schäffer – A geometric perspective to robot nonlinear oscillations with application to locomotion
- John Canny – Explainable and advisable self-driving vehicle models

10h55 – 11h25 Break

11h25 – 12h40 **Session 2** chaired by Nicolas Mansard

- Eiichi Yoshida – Human and humanoid together – looking back our scientific adventure and into future
- Katja Mombaur – From optimality principles in human movement to motion intelligence in human-centred robots
- Justin Carpentier – Robotics: computational foundations of artificial motion

12h40 – 14h20 **Lunch** (everyone on their own)

14h20 – 16h00 **Session 3** chaired by Martial Hebert

- Céline Pieters – Talking about moving machines: language and representations
- Ken Goldberg – Art and robots: a tribute to Jean-Paul Laumond
- Daniel Andler – Is having a body a sufficient and / or necessary condition for an AI system to attain intelligence?
- Antonio Bicchi – Of bots and men

16h00 – 16h30 Break

16h30 – 17h45 **Session 4** chaired by Steve Laval

- Vincent Hayward – Tactile mechanics and its impact on the messages sent to the brain
- Alessandro de Luca – On the control of physical human-robot interaction
- Jean Ponce – A swept-volume metric structure for configuration space

17h45 – 18h00 Closing remarks

18h – 19h Cocktail