

# ON THE ROAD TO NEW HORIZONS:

**A LIGHTHEARTED CONFERENCE ON CONTROL  
THEORY, CELEBRATING WITOLD RESPONDEK'S  
(PARTIAL) RETIREMENT!**

3 jours de conférences pour réunir des chercheurs en  
théorie du contrôle, pour discuter des avancées récentes et  
célébrer les contributions majeures de Witold Respondek.

→ **DU 19 AU 21 JUIN 2024**

AMPHITHÉÂTRE DU CORIA, LE 19 JUIN  
AMPHITHÉÂTRE G. TILLION, LES 20 ET 21 JUIN



**Programme**  
<https://lcct2024.sciencesconf.org>

## Wednesday, June 19, 2024

Time	Event	Place
10:50 - 11:30	Coffee break	Coria - Near conference room
11:30 - 12:00	Welcome & Opening	Coria - Conference room
12:00 - 12:50	<b>Arthur J. Krener</b> Nonlinear Observers with Linear Error Dynamics	Coria - Conference room
13:00 - 14:30	Lunch	INSA (patio or MA B. RC. 07)
14:30 - 15:10	<b>Pierre Rouchon</b> Gate generation for open quantum systems via a monotonic algorithm with time optimization	Coria - Conference room
15:10 - 15:50	<b>Jean-Baptiste Pomet</b> Old unsolved problems in differential flatness or dynamic linearization	Coria - Conference room
15:50 - 16:20	Coffee break	Coria - Near conference room
16:20 - 17:00	<b>Claude Moog</b> Classification and decomposition of mechanical control systems	Coria - Conference room
17:00 - 17:40	<b>Wiktor Malesza</b> Controller design for positive system using gain-scheduling technique	Coria - Conference room
18:00 - 19:30	Cocktail	INSA (patio or MA B. RC. 07)

## Thursday, June 20, 2024

Time		Event	Place
09:00 - 09:40	<b>Bronisław Jakubczyk</b>	Gauge equivalence of control systems and conjugate points	INSA – Amphi Tillion
09:40 - 10:20	<b>Florentina Nicolau</b>	Constructing flat inputs for two-output systems	INSA – Amphi Tillion
10:20 - 10:50		Coffee break	INSA (patio or near amphi)
10:50 - 11:30	<b>Frédéric Jean</b>	Inverse optimal control problem, general methodology and non-autonomous LQ case	INSA – Amphi Tillion
11:30 - 12:10	<b>Hugo Boscaïn</b>	Geometric confinement of the curvature laplacian on almost Riemannian manifolds	INSA – Amphi Tillion
12:10 - 12:50	<b>Marcin Nowicki</b>	Mechanical feedback linearization of mechanical control systems	INSA – Amphi Tillion
13:00 - 14:30		Lunch	INSA (patio ou MA B. RC. 07)
14:30 - 15:10	<b>Romeo Ortega</b>	Observability is Sufficient for State Observation of State-affine Nonlinear Systems	INSA – Amphi Tillion
15:10 - 15:50	<b>Timothée Schmoderer</b>	Characterising and classifying control systems : a story that goes on	INSA – Amphi Tillion
15:50 - 16:20		Coffee break	INSA (patio or near amphi)
16:20 - 17:00	<b>Andrzej J. Maciejewski</b>	Non-integrability of the n-body problem	INSA – Amphi Tillion

## Friday, June 21, 2024

Time		Event	Place
09:00 - 09:40	<b>Henk Nijmeijer</b>	Synchronization of multiple oscillators, the role of coupling and geometry	INSA – Amphi Tillion
09:40 - 10:20	<b>Carole Le Guyader</b>	Mathematical foundations of a level-set-based shape convex hull identification algorithm	INSA – Amphi Tillion
10:20 - 10:50		Coffee break	INSA (patio or near amphi)
10:50 - 11:30	<b>William Pasillas-Lépine</b>	Automatic Train Operation: Robust regulation around constrained trajectories	INSA – Amphi Tillion
11:30 - 12:10	<b>Jean-Pierre Barbot</b>	Left inversion of nonlinear dynamic systems	INSA – Amphi Tillion
12:10 - 12:50	<b>Philippe Jouan</b>	Generalized Solutions to Degenerate Dynamical Systems	INSA – Amphi Tillion
13:00 - 14:00		Lunch	INSA (patio or MA B. RC. 07)