Spring School on Theory and Applications of Port-Hamiltonian Systems (PHS 2025)
23 - 28 March 2025, Frauenchiemsee, Bavaria

Program

	Sunday 23 March	Monday 24 March	Tuesday 25 March	Wednesday 26 March	Thursday 27 March	Friday 28 March
Morning I 9:00-10:30	Shuttle from Munich airport departs at 12:30. Only for participants who chose this option during registration.	Introduction: BayFrance, DFH-UFA Doctoral College PHS *(A. Honsdorf, P. Kotyczka, B. Maschke, 30 min)* Lecture 1 **Introduction to PHS** *(B. Maschke)*	Lecture 5 **Analysis of infinite-dimensional PHS** *(H. Zwart, B. Jacob)*	**Minicourse Optimization for PHS and PHS in Optimization** Lecture M1 **Motivational applications** *(M. Schaller, C. Totzeck)*	**Minicourse Optimization for PHS and PHS in Optimization** Lecture M3 **Numerical Algorithms** *(M. Schaller, C. Totzeck)*	Lecture 7 **Introduction to irreversible PHS** *(H. Ramirez, 60 min)* Lecture 8 **Boundary controlled iPHS** *(Y. Le Gorrec, 30 min)*
Coffee	*Coffee*	*Coffee*	*Coffee*	*Coffee*	*Coffee*	*Coffee*
Morning II 11:00-12:00		Lecture 2 **Structure and properties of PHS** *(A. van der Schaft)*	Lecture 6 **Control of infinite-dimensional PHS** *(Y. Le Gorrec, A. Macchelli)*	Lecture M2 **Theory** *(M. Schaller, C. Totzeck)*	Advanced Topic M1 **Advanced Topics** *(M. Schaller, C. Totzeck)*	Advanced Topic 7 **PHS with implicitly defined energy** *(B. Maschke)* Closing and farewell *(B. Maschke, P. Kotyczka)*
Lunch		*Lunch*	*Lunch*	*Lunch*	*Lunch*	*Lunch*
Afternoon I 14:00-16:00 (75 + 45 min)	Check-in and welcome	**PhD students' poster session** Lecture 3 **Control of finite-dimensional PHS** *(P. Borja)*	**PhD students' poster session** Advanced Topic 2 **Spatial discretization of PHS** *(D. Matignon)*	**13:30 Boat departure** Excursion to Herrenchiemsee	**Interactive session** (outdoor if possible)	**13:30** Boat departure for bus transfer
Coffee		*Coffee*	*Coffee*		*Coffee*	
Afternoon II 16:30-18:00 (45 + 45 min)	First meeting *(P. Kotyczka, A. Honsdorf, B. Maschke)*	Advanced Topic 1 **Discrete-time PHS and control** *(A. Macchelli, P. Kotyczka)* Lecture 4 **Modeling of infinite-dimensional PHS** *(Y. Le Gorrec)*	Advanced Topic 3 **Port-based models of nonlinear mechanical systems** *(P. Kotyczka)* Advanced Topic 4 **Geometry, topology and control in ports** *(S. Stramigioli)*		Advanced Topic 5 **Krasovskii passivity-based output consensus** *(M. Cucuzzella)* Advanced Topic 6 **Energy-based simulation in musical acoustics** *(T. Hélie)*	Shuttle to Munich airport departs at 14:00 from Gstadt.
Dinner		*Dinner*	*Dinner*	*Dinner*	*Dinner*	
Evening 20:00-	Welcome dinner and welcome receptions	EMS topical activity group PHS meeting	Plenary meeting CDFA-PHS organizers	Evening Talk **Challenges in PHS: where are we and where to go?** *(A. van der Schaft)*	Farewell party	

Lecture	Advanced Topic	Interactive Session	Keynote	Social Event