PhysCon 2017 - Technical Program Overview

July 17, 2017, Monday
University of Firenze, Piazza San Marco 4
Room "Aula Magna"

Time	Aula Magna
08:00	Registration
09:00	Opening
09:30	Course 1
10:15	Course 2
11:00	Coffee Break
11:30	Keynote Speaker 1
12:15	Lunch
14:00	Course 3
14:45	Course 4
15:30	Coffee Break
16:00	Keynote Speaker 2
16:45	Keynote Speaker 3
17:30	Free Time
	IPACS General Assembly
19:00	Welcome Reception

July 18, 2017, Tuesday
Didactic Plexus "Capponi", via Gino Capponi 9

Time	Room A	Room B	Room C
08:30	T1A	T1B	T1C
10:45	Coffee Break		
11:15	T2A	T2B	T2C
13:15	Lunch		
14:45	T3A	T3B	T3C
16:45	Coffee Break		
17:15	T3A	Free Time	
19:15	Gala Dinner *Botanical Garden "Giardino dei Semplici"*		
23:00			

July 19, 2017, Wednesday
Didactic Plexus "Capponi", via Gino Capponi 9

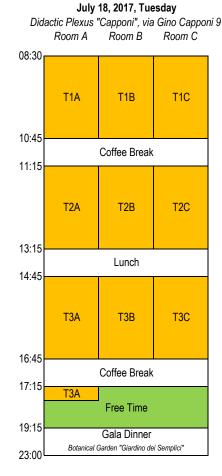| Time	Room A	Room B	Room C
08:30	W1A	W1B	W1C
10:45	Coffee Break		
11:15	W2A	W2B	W2C
13:15	Lunch		
14:45	W3A	W3B	W3C
16:45	Conclusions		
17:15			

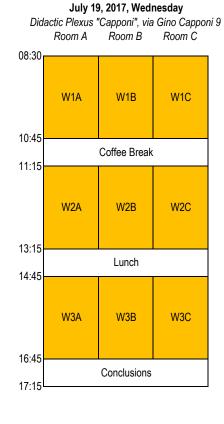## Short Courses on Basics of Physics of Control and Recent Advancements

Course 1: Cybernetical Physics-2017
Alexander Fradkov (Inst. for Problems of Mech. Eng., St. Petersburg, Russia)

Course 2: Quenching and Reviving Oscillations in Complex Networks
Juergen Kurths (Humboldt University, Berlin, Germany)

Course 3: Controlling partial synchronization patterns: chimera states
Eckehard Schöll (Technische Universität, Berlin, Germany)

Course 4: Bellerophon States: Coexistence of Quantized, Time Dependent, Clusters in Globally Coupled Oscillators
Stefano Boccaletti (ISC-Institute for Complex Systems, Italy)

Keynote Speakers

Keynote Speech 1: Remote synchronization in complex networks
Mattia Frasca (Università di Catania, Italy)

Keynote Speech 2: History of nonlinear oscillations theory
Jean-Marc Ginoux (LSIS, CNRS, UMR 7296, France)

Keynote Speech 3: Thermodynamics of information and control: the twin legacies of James Clerk Maxwell
John Bechhoefer (Simon Fraser University, Canada)

Sessions

W1B, W2B, W3B	Control and Optimization in Physics and Engineering	(regular)
T2C, T3C	Synchronization and Complex Networks	(regular)
W1C, W2C	Nonlinear Dynamics, Complex Systems and Applications	(regular)
W3A	MEMS, Nanotechnologies and Sensors	(regular)
T2A	Algebraic Aspects of Control of Dynamical Systems and Applications	(special)
T2B	Analogies between Long-Delayed and Spatially Extended Systems	(special)
T1C	Chaotic and Complex Dynamics and its Applications	(special)
T3B	Control of Self-Organized Patterns in Complex Networks	(special)
W1A, W2A	Control, State Estimation and Optimization of Dynamical Systems	(special)
T1B	Dynamics and Regulation of Complex Interaction Models	(special)
T1A	Multistability and Its Control	(special)
T3A, T4A	Quantum Optimal Control	(special)

PhysCon 2017 - Condensed Sessions OverView

July 18, 2017, Tuesday
Didactic Plexus "Capponi", via Gino Capponi 9

time	order	Room A	ID	Room B	ID	Room C	ID	
08:30	1	Multis	10	DynReg	54	ChaCpx	23	
	2	Multis	17	DynReg	65	ChaCpx	48	
	3	Multis	18	DynReg	69	ChaCpx	52	
	4	Multis	27	DynReg	76	ChaCpx	101	
	5	Multis	31	DynReg	91	ChaCpx	113	T1
	6	Multis	34	DynReg	146	ChaCpx	152	
	7	Multis	82	DynReg	149	ChaCpx	99	
	8	Multis	159					
10:45	9							

Coffe Break

time	order	Room A	ID	Room B	ID	Room C	ID	
11:15	1	Algebr	4	Analog	43	Synchro	29	
	2	Algebr	5	Analog	55	Synchro	39	
	3	Algebr	7	Analog	64	Synchro	51	
	4	Algebr	8	Analog	85	Synchro	87	T2
	5	SkypeCall	47	Analog	127	Synchro	112	
	6			Analog	PDP	Synchro	138	
	7					Synchro	150	
13:15	8							

Lunch

time	order	Room A	ID	Room B	ID	Room C	ID	
14:45	1	QuaOpt	123	ConNet	95	SkypeCall	42	
	2	QuaOpt	160	ConNet	98	SkypeCall	40	
	3	QuaOpt	158	ConNet	97			
	4	QuaOpt	73	ConNet	92			T3
	5	QuaOpt	110	ConNet	116			
	6	QuaOpt	PDP	ConNet	124			
	7	QuaOpt	106	ConNet	139			
16:45	8	QuaOpt	140	ConNet	154			

Coffe Break

time	order	Room A	ID		
17:15	1	QuaOpt	72		T4

Free Time

19:15	Gala Dinner
	Botanical Garden "Giardino dei Semplici"
23:00	

July 19, 2017, Wednesday
Didactic Plexus "Capponi", via Gino Capponi 9

time	order	Room A	ID	Room B	ID	Room C	ID	
08:30	1	CntSta	21	ConOpt	3	NonLin	2	
	2	CntSta	26	ConOpt	9	NonLin	15	
	3	CntSta	38	ConOpt	16	NonLin	25	
	4	CntSta	53	ConOpt	22	NonLin	50	
	5	CntSta	68	ConOpt	32	NonLin	56	W1
	6	CntSta	71	ConOpt	37	NonLin	58	
	7	CntSta	83	ConOpt	49	NonLin	66	
	8	CntSta	90	ConOpt	60	NonLin	70	
10:45	9	CntSta	96	ConOpt	77	NonLin	74	

Coffe Break

time	order	Room A	ID	Room B	ID	Room C	ID	
11:15	1	CntSta	104	ConOpt	81	NonLin	121	
	2	CntSta	107	ConOpt	105	NonLin	122	
	3	CntSta	135	ConOpt	108	NonLin	129	
	4	CntSta	136	ConOpt	114	NonLin	133	
	5	CntSta	141	ConOpt	115	NonLin	156	W2
	6	CntSta	144	ConOpt	118	NonLin	162	
	7	CntSta	145	ConOpt	119	NonLin	PDP	
13:15	8	CntSta	151	ConOpt	120			

Lunch

time	order	Room A	ID	Room B	ID	Room C	ID	
14:45	1	Mems	14	ConOpt	125			
	2	Mems	20	ConOpt	128			
	3	Mems	57	ConOpt	134			
	4	Mems	79	ConOpt	142			W3
	5	Mems	93	ConOpt	147			
	6	Mems	109	ConOpt	157			
	7	Mems	131	ConOpt	126			
16:45	8							

Conclusions

17:15	

Chairs	Sessions	Type	Acronym
A.Fradkov, A. Ovseevich, R.Meucci	Control and Optimization in Physics and Engineering	regular	ConOpt
M.Frasca, E.Schoell	Synchronization and Complex Networks	regular	Synchro
M.V. Shamolin, R. Grigoriev	Nonlinear Dynamics, Complex Systems and Applications	regular	NonLin
F. Marino	MEMS, Nanotechnologies and Sensors	regular	Mems
M. I. Garcia-Planas	Algebraic Aspects of Control of Dynamical Systems and Applications	special	Algebr
F. Marino, G.Giacomelli	Analogies between Long-Delayed and Spatially Extended Systems	special	Analog
E. Macau, H. Cerdeira, S.Dana	Chaotic and Complex Dynamics and its Applications	special	ChaCpx
D. Fanelli, T. Carletti, J.Hizanidis, N.Kouvaris	Control of Self-Organized Patterns in Complex Networks	special	ConNet
B. Ananyev, T. Filippova	Control, State Estimation and Optimization of Dynamical Systems	special	CntSta
G. Innocenti	Dynamics and Regulation of Complex Interaction Models	special	DynReg
A. N. Pisarchik	Multistability and Its Control	special	Multis
F. Caruso, F. Cataliotti	Quantum Optimal Control	special	QuaOpt