

Workshop on Performance Guarantees in Wireless Networks

Organized by François Baccelli and Jean-Marie Gorce

March 2023, Wednesday 08th and Thursday 09th
@LINCS 19 place Marguerite Perey, 91123 Palaiseau, Amphi Rose Dieng

Sponsored by: ERC NEMO, LINCS, IMT, INRIA, PEPR 5G

WEDNESDAY 8th			
TIME	NAME	AFFILIATION	TALK'S TITLE
9 – 9.10	Organizers	LINCS + Inria	Welcome
SESSION 1: Fundamental Limits			
9.10 – 9.50	Jean-Marie Gorce	Insa Lyon Inria Lyon	Talk 1 “Performance guarantees in a wireless cell with massive access: beyond capacity with non asymptotic information theory”
9.50 – 9.55			Short break
9.55 – 10.35	Derya Malak	Eurecom	Talk 2 “The Interplay of Spectral Efficiency, User Density, and Energy in Random Access Protocols”
10.35 – 11.05			Coffee break
11.05 – 11.45	Laurent Clavier	IMT Nord Europe	Talk 3 “Some words about interference”
11.45 – 11.50			Short break
11.50 – 12.30	Samir M. Perlaza	Inria Sophia	Talk 4 “An Upper Bound on the Error Induced by Saddlepoint Approximations—Applications to Wireless Communications”
12.30 – 14			Lunch break
SESSION 2: Short Codes			
14 – 14.40	Inbar Fijalkow	CNRS Cergy	Talk 5 “NOMA uplink networks under statistical delay constraints”
14.40 – 14.45			Short break
14.45 – 15.25	Maxime Guillaud	Inria Lyon	Talk 6 “Towards Practical Waveforms for Massive Random Access”
15.25 – 15.55			Coffee break
15.55 – 16.35	Philippe Mary	CNRS Rennes	Talk 7 “Increasing the performance of polar codes at short blocklength”
16.35 – 16.40			Short break
16.40 – 17.20	Charly Poulliat	CNRS Toulouse	Talk 8 “Power efficient Communications: asymptotic versus finite length error correcting schemes performance”
20			Speakers’ social dinner

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THURSDAY 9th			
TIME	NAME	AFFILIATION	TALK'S TITLE
9 – 9.10	Organizers	LINCS	Welcome
SESSION 3: URLLC 1			
9.10 – 9.50	Jean-Yves Leboudec	EPFL	Talk 9 “Time Sensitive Networks and Network Calculus and Clock Non-idealities”
9.50 – 9.55			Short break
9.55 – 10.35	Ke Feng	Inria Paris	Talk 10 “Spatial Network Calculus and Performance Guarantees in Wireless Networks”
10.35 – 11.05			Coffee break
11.05 – 11.45	Marios Kountouris	Eurecom	Talk 11 “Goal-oriented Communication for Distributed Intelligent Systems”
11.45 – 11.50			Short break
11.50 – 12.30	Michèle Wigger	Télécom-Paris	Talk 12 “Capacity-Tradeoffs in Networks with Mixed-Delay Traffics and Random Arrivals”
12.30 – 14			Lunch break
SESSION 4: URLLC 2			
14 – 14.40	Marco Di Renzo	Centrale Supelec	Talk 13 “Analysis of the Delay Distribution in Cellular Networks by Using Stochastic Geometry”
14.40 – 14.45			Short break
14.45 – 15.25	Marceau Coupechoux Benoît-Marie Robaglia	Télécom-Paris	Talk 14 “Deep Reinforcement Learning for Multiple Access in uplink URLLC networks”
15.25 – 15.55			Coffee break
15.55 – 16.35	Salah Elayoubi	Centrale Supelec	Talk 15 “Rediscovering Aloha for latency-critical services: the blind and the far-sighted”
16.35 – 16.45			Short break
16.45 – 17.25	Emmanuel Boutillon	Univ.Bretagne Sud	Talk 16 “Quasi Cyclic Short Packets for unslotted aloha transmission”
17.25 – 17.35	Organizers	LINCS + Inria	Closing remarks