CONFERENCIA

Emerging Mathematical Tools and Transmission Technologies for 5G Wireless Networks: The Stochastic Geometry and Spatial Modulation Saga

impartida por

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Abstract: The fifth-generation (5G) is coming. Quo vadis 5G? What architectures, network topologies and technologies will define it? Are methodologies to the analysis, design and optimization of current cellular networks still applicable to 5G? This speech has a twofold objective.

Día: Martes, 2 de Junio de 2015
Hora: 17:00

It will introduce the attendees to advanced mathematical tools to the analysis of emerging 5G cellular network architectures (e.g., ultra-dense multi-tier heterogeneous cellular networks). The fundamentals of Stochastic Geometry will be introduced and its usefulness to the analysis and design of 5G wireless network will be discussed. Recent results in this field will be illustrated, along with the applications of this tool to various emerging 5G application scenarios.

Día: Miércoles, 3 de Junio de 2015
Hora: 11:00

A new low-complexity and energy-efficient multiple-antenna transmission technology will be introduced. This technology is today best known as Spatial Modulation, and it has been receiving the attention of the research community for its capability of achieving a flexible spectral vs. energy efficiency trade-off at a low implementation complexity. The most relevant results in this field of research will be summarized, including theory and the world first experimental activities.

Lugar: Sala de Grados B, E.T.S.I. de Telecomunicación