

PhD student opening

At the **Communications and Information Theory Chair** of Technische Universität Berlin a few positions of PhD students with possible teaching obligations are to fill for max. 5 years.

Profile description: applicants must have earned a 4 or 5 years university degree (preferably at the MS level, or comparable 5 years degree) in at least one of the following areas: Electrical/Computer Engineering, Computer Science, Mathematics, Physics.

For graduates in Engineering, particular emphasis will be given to candidates with background in one or more of the following areas: physical layer communications, wireless communications, channel coding theory, information theory, design and optimization of digital transceivers, including detection, estimation and synchronization, implementation of real-time systems, FPGA programming and development on mobile platforms (Android/iOS) and software-defined radio platforms, statistical signal processing, compressed sensing, design and analysis of multiple antenna systems, queuing theory, network performance analysis, cross-layer design and resource allocation.

For graduates in Computer Science, particular emphasis will be given to candidates with background in one or more of the following areas: machine learning, high-dimensional inference and big-data algorithms, compressed sensing, structured matrix recovery, robust principal component analysis, distributed controls over communication networks, cyber-physical systems (e.g., power distribution networks (SmartGrid), smart transportation networks).

For graduates in Mathematics and Physics, particular emphasis will be given to candidates with background in one or more of the following areas: multivariate statistics and random matrix theory, statistical physics, convex and combinatorial optimization, stochastic geometry, discrete mathematics and graph theory.

Job description and duties: the selected applicant will enter the PhD program at TU-Berlin, with the Communications and Information Theory Chair of the Department of Electrical Engineering and Computer Science. The main job duties consists of developing innovative and independent research on a set of topics defined in agreement with his/her academic advisor, Prof. Caire, and possible co-advisors (to be defined), possibly working on research projects with the Chair, and support the teaching offering of the Chair, in the areas of Communications and Information Theory, wireless communications and related areas.

Please contact Prof. Caire (caire@tu-berlin.de) for further information.