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Invitation for a guest lecture

by Henk Wymeersch, Prof. of Communication Systems,

Department of Electrical Engineering at Chalmers University of Technology, Sweden

„Channel parameter estimation and positioning at 5G FR1“

Date: Thursday, February 29, 2024 at 14:00 hrs

Seminar Room CGV ID02104, Inffeldgasse 16 c/II, 8010 Graz

Abstract: The introduction of mmWave bands in 5G (the so-called FR2 band) has created immense excitement, due to the large available bandwidth, providing excellent delay resolution. Unfortunately, now 5G is being deployed around the world, FR2 has only seen limited real-world use and actual deployments are scarce. This forces researchers to look to the more challenging FR1 band. In this work, we study channel parameter estimation and localization at FR1, covering bounds and different algorithm classes. We end with a discussion on how high resolution can be obtained at lower frequencies.

Bio: Henk Wymeersch obtained the Ph.D. degree in Electrical Engineering/Applied Sciences in 2005 from Ghent University, Belgium. He is currently a Professor of Communication Systems with the Department of Electrical Engineering at Chalmers University of Technology, Sweden. He is also a Distinguished Research Associate with Eindhoven University of Technology. Prior to joining Chalmers, he was a postdoctoral researcher from 2005 until 2009 with the Laboratory for Information and Decision Systems at the Massachusetts Institute of Technology. Prof. Wymeersch served as Associate Editor for IEEE Communication Letters (2009-2013), IEEE Transactions on Wireless Communications (since 2013), and IEEE Transactions on Communications (2016-2018) and is currently Senior Member of the IEEE Signal Processing Magazine Editorial Board. During 2019-2021, he was an IEEE Distinguished Lecturer with the Vehicular Technology Society. His current research interests include the convergence of communication and sensing, in a 5G and Beyond 5G context.