

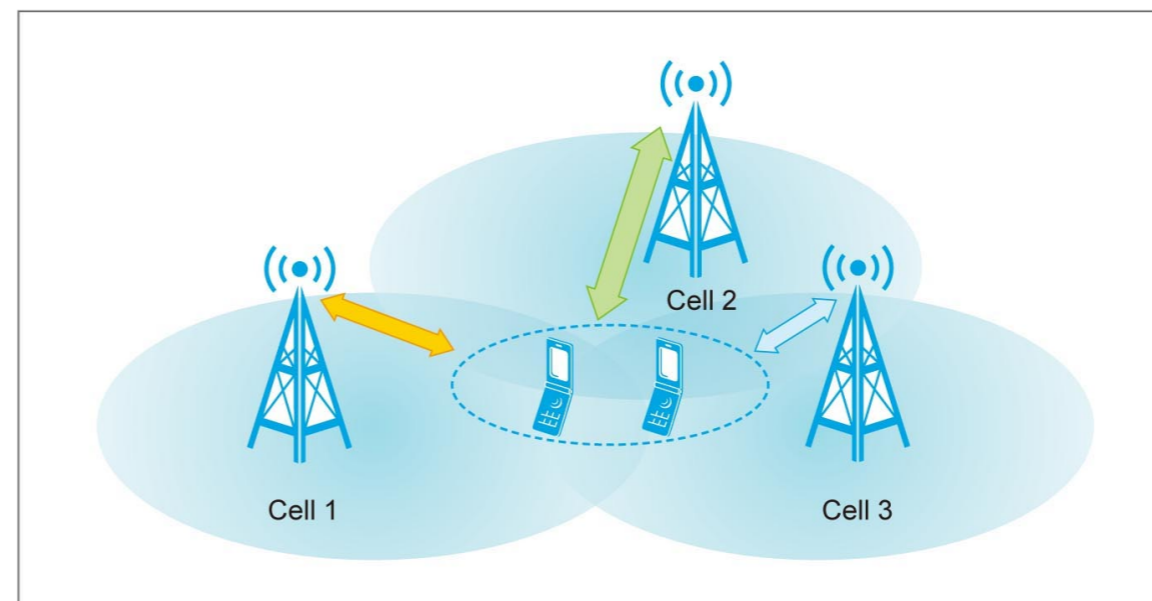
MIMO - Communication and Space-Time-Coding (18-pe-2030-v1)

Prof. Marius Pesavento

This course is devoted to the principles of "Space-Time Coding" and "Multiple-Input Multiple-Output (MIMO)" communication and addresses students in the master-programm. "Space-Time Coding" schemes and MIMO communication techniques lay the foundation of today's wireless communication systems, for instance, the LTE system, as well as for next-generation wireless communication systems which will appear in the near future, e.g., 5G networks.

Outline: MIMO channels, MIMO detectors, MIMO channel estimation, MIMO capacity, Space-Time-Block Coding (STBC), Differential STBC, Multiuser Beamforming, MIMO in LTE, Massive MIMO

- 5G fundamentals
- Offered in every winter semester
- Language of instruction - English



Example wireless communication system with multiple users and multiple cells