

# **Microwave and Communication Networks Laboratory**

**Department of Engineering and Architecture  
University of Trieste, Italy**

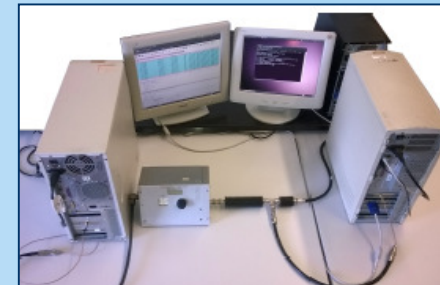
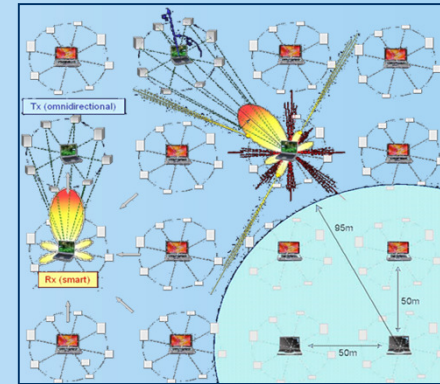




# Research (I)

## □ Gigabit-WiFi and 5G networks

- 2D/3D stochastic geometry modeling
- multi-packet peer-to-peer communication
- massive MIMO
- adaptive voice/video retransmission
- software defined radio
- channel coding



## □ Ranging in 4G LTE networks

- theoretical bounds
- estimation algorithms

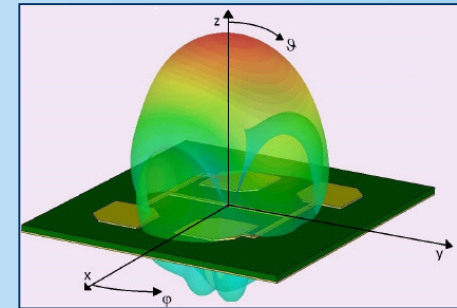




# Research (II)

## □ CubeSat systems

- advanced random access
- mmWave antenna design



## □ Fast 2D/3D conformal/sparse antenna array synthesis

- far/near-field, polarization, dynamic range ratio control
- reconfigurability
- fractal antennas

## □ Free Electron Laser (FEL)

- interaction between electromagnetic fields and relativistic electrons





## Collaborations



## Contacts

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