



mascot workshop@Unical

*December 3-4, 2007
Sala Riunioni DEIS
Piano V - Cubo 42C
Universita' della Calabria*

www.ist-mascot.org

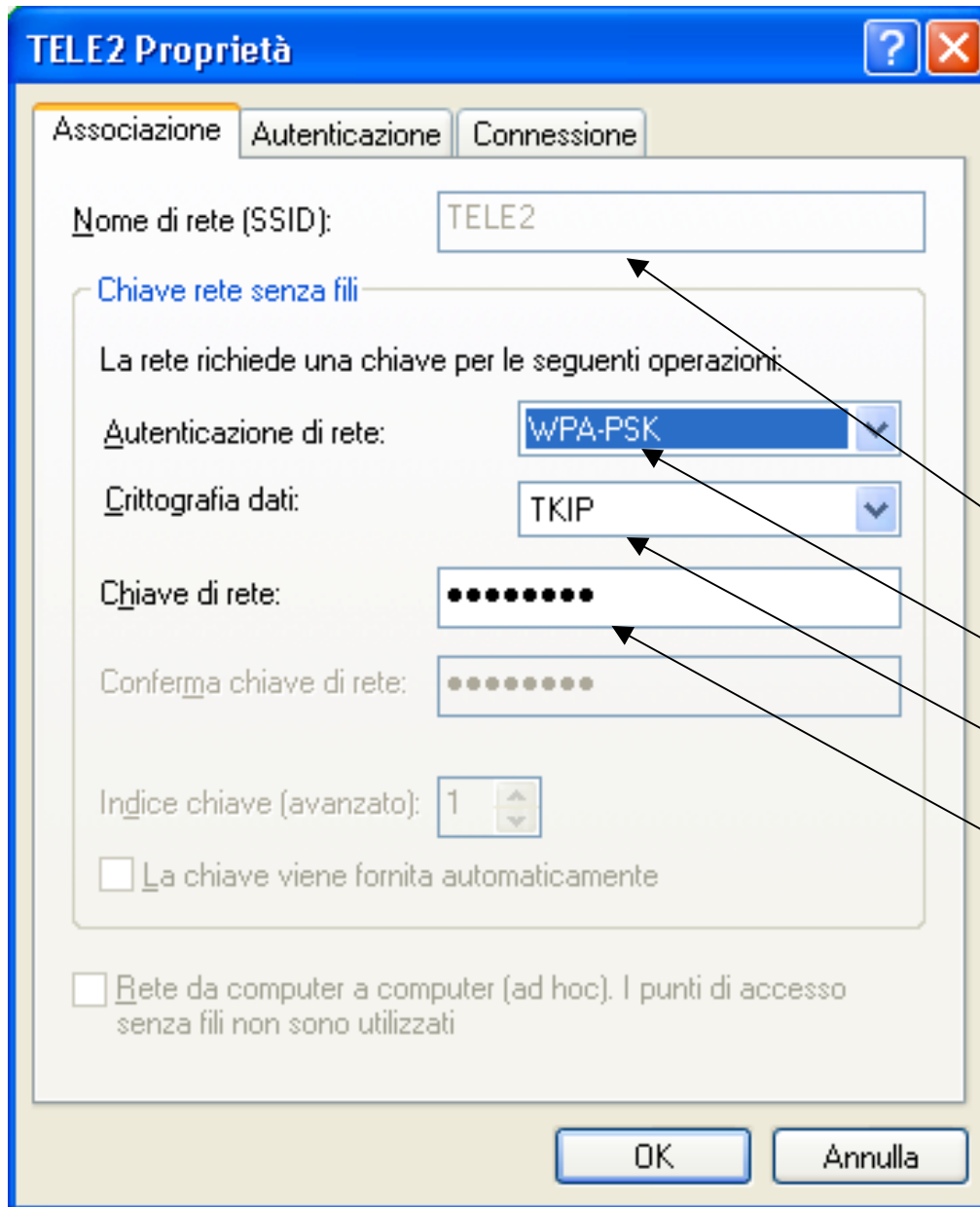
Goals of this workshop



- Promote joint research
 - across partners
 - across work packages

- Research and resource planning for the final MASCOT year: 2008.

- MASCOT successor project plan
 - Discussion of scope and top-level goals
 - Definition of roadmap for project definition
 - Targeted call: FP-ICT Call 3



Wi-Fi CONNECTION

SSID: **TELE2**

Auth: **WPA-PSK**

Crypto: **TKIP**

Net Key:
mascot-unical-meeting

Monday December 3: plan



Use your talks as an appetizer for the discussion of open problems. We have come together to prepare future publications rather than present solutions.

09:00-09:15 **Welcome message, proposed agenda**

09:15-11:00 **PHY Algorithms**

11:00-11:30 coffee break

11:30-13:00 **MAC Algorithms**

13:00-15:00 Lunch

15:00-16:30 **Performance benchmarks and Relaying**

16:30-17:00 coffee break

17:00-18:30 **Open discussions**

20:30 Departure for dinner from *Hotel Fattoria Stocchi*

Tuesday December 4: plan



9:00-10:30 Parallel sessions

1. Project Steering Committee Meeting
(Ari, cfm, Emanuele, Ezio, Gerald, Giorgio, Helmut, Martin)
2. Continued research discussions (others)

10:30-11:00 coffee break

11:00-13:00 MASCOT successor plan

- Structure of the proposal
- Who writes which parts of the proposal?
- Upcoming deadlines

13:00-15:00 Lunch

15:00 Discussions and departures

Monday 09:15-10:45

Physical layer algorithms



09:15-09:30 **Dominik:** *Efficient vector perturbation in multi-antenna multi-user systems: Approximate integer relations and VLSI implementation.*

09:30-09:45 **Roland:** *SINR Estimation in Random Beamforming with Noisy MIMO Channel Measurements*

09:45-10:00 **Emanuele:** *A Fast-Decodable, Quasi-Orthogonal Space-Time Block Code for 4x2 MIMO*

10:00-10:15 **Barbara:** *A fast decoder for GST-TCM*

10:15-10:30 **Thomas:** *Low-Complexity MIMO Multi-User Receiver: A Joint Antenna Detection Scheme for Time-Varying Channels*

10:30-10:45 **Johannes:** *Precoding Diversity with Imperfect Channel State Information*

10:45-11:30 *coffee break*

Monday 11:30-12:30

PHY + MAC Algorithms



11:30-11:45 **Clemens:** *Factor Graph framework for IDMA receivers*

11:45-12:00 **Nikola:** *Robust Downlink Transceiver Optimization of Multiuser Systems with Multiple Antennas*

12:00-12:15 **Martin:** *Interference Calculus and Nash Bargaining for Wireless Resource Allocation*

13:00-15:00 *Lunch*

Monday 15:00-16:30

Performance benchmarks and Relaying



15:00-15:15 **Giorgio:** *On the Ergodic Capacity Region of Correlated Rician Fading MIMO Channels*

15:15-15:30 **Erwin:** *Second-Order Statistics of the Mutual Information of the Asymptotic Separately-Correlated Rician Fading MIMO Channel with Interference*

15:30-15:45 **Petros:** *Mathematical aspects of asymptotic optimality in cooperative networks: The DDF example*

15:45-16:00 **Gerald:** *Characterization and Modeling of Doubly Dispersive MIMO Channels*

16:00-16:15 **Peter:** *Performance comparison of MIMO soft-demappers*

16:15-16:30 **Joakim:** *Worst- and Average-Case Complexity of LLL Lattice Reduction in MIMO Wireless Systems*