



# First International Workshop on Sustainable Internet and Internet for Sustainability

June 20, 2011  
LUCCA (Tuscany), ITALY

## WORKSHOP PROGRAM

### 8:30-8:45 Opening Remarks

### 8:45-9:45 Keynote Speech

*Green Networking Technologies for a Sustainable Future Internet*

Franco Davoli, University of Genova, Italy

### 9:45-10:45 Session 1: Energy Efficiency Optimization (Extended presentations)

**Session Chair: Giuseppe Anastasi (University of Pisa)**

*Cooperative and Non-Cooperative House Energy Optimization in a Smart Grid Perspective*

Antimo Barbato, Antonio Capone, Giuliana Carello, Maurizio Delfanti, Marco Merlo, Andrea Zaminga (Politecnico di Milano)

*Server Consolidation in Clouds through Gossiping*

Moreno Marzolla, Ozalp Babaoglu, Fabio Panzieri (University of Bologna)

### 10:45-11:15 Coffee break

### 11:15-12:35 Session 2: Energy Efficient Networking

**Session Chair: Marco Ortolani (University of Palermo)**

*Routers versus switches, how much more power do they really consume?*

Hakim Mellah (GERAD and Ecole Polytechnique de Montreal); Brunilde Sanso (Ecole Polytechnique de Montreal)

*Power measurement campaign for evaluating the energy efficiency of current NICs*

Christian Callegari, Rosario G. Garroppo, Stefano Giordano, Gianfranco Nencioni, Michele Pagano (University of Pisa)

*Minimizing the Energy Consumption of Carrier Grade Ethernet with Multiple Spanning Trees*

Antonio Capone, Daniele Corti (Politecnico di Milano); Brunilde Sanso (Ecole Polytechnique de Montreal)

*Power-aware Network Systems using Adaptive Optical Path Control for Large-scale Multi-layer Service Networks*

Michihiro Aoki, Shigeo Urushidani (National Institute of Informatics, Japan)

### 12:45-14:00 Lunch

### 14:00-15:30 Session 3: Towards a Greener Internet (Extended presentations)

**Session Chair: Rosario Garroppo (University of Pisa)**

*Energy Management in IP Traffic Engineering with Shortest Path Routing*

Edoardo Amaldi, Antonio Capone, Luca Gianoli, Luca Mascetti (Politecnico di Milano)

*ESOL: Energy Saving in the Internet based on Occurrence of Links in the Routing Paths*

Anna Abbagnale, Francesca Cuomo, Sabino Papagna (University of Rome Sapienza)

*ECOFEN: towards an End-to-end energy Cost model and simulator For Evaluating power consumption in large-scale Networks*

Anne-Cecile Orgerie (ENS Lyon, France); Laurent Lefevre (INRIA, France); Isabelle Guerin-Lassous (Université de Lyon - LIP); Dino Martin Lopez Pacheco (University of Nice)

### 15:30-16:00 Coffee Break

### 16:00-17:00 Session 4: Energy-Efficient Distributed Systems

**Session Chair: Giuseppe Lo Re (University of Palermo)**

*Evaluating Energy Consumption in a Cloud Infrastructure*

Dario Bruneo, Francesco Longo, Antonio Puliafito (University of Messina)

*Energy-cost-aware scheduling of HPC workloads*

David Aikema, Cameron Kiddle, Rob Simmonds (University of Calgary)

*Predictive Models for Energy Saving in Wireless Sensor Networks*

Alessandra De Paola, Giuseppe Lo Re, Fabrizio Milazzo, Marco Ortolani (University of Palermo)

### 17:00-18:00 Panel: Internet sustainability or Internet for sustainability: what really matters?

**Session Chair: Marco Conti (IIT-CNR, Italy)**

**Panelists:**

Franco Davoli (University of Genova, Italy)

Karin Anna Hummel (University of Vienna, Austria)

Brunilde Sanso (Ecole Polytechnique de Montreal, Canada)

Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy)

### 18:00 Final Remarks

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