CENTRO FERMI
Museo Storico della Fisica e Centro Studi e Ricerche Enrico Fermi

Physics and Physics-based Technologies for Health
Fisica e strumentazione per la salute dell'uomo

A scientific meeting to present the activities in this area of Fermi Centre

Centro Fermi – Museo Storico della Fisica e Centro Studi e Ricerche Enrico Fermi
16 October 2014

09:30 *Registration*

09:45 The research projects of Fermi Centre
Luisa Cifarelli, *Fermi Centre President*

10:30 *Progetto Premiale:* Functional networks studied by NMR (NETFUN): general aims
Bruno Maraviglia, *Fermi Centre* - Rome

10:45 Modulations of functional networks: development of methods and findings
Federico Giove, *Fermi Centre* - Rome

11:15 Shannon entropy in functional time series
Mauro Di Nuzzo, *Fermi Centre* - Rome

11:30 *Progetto Premiale:* Resonant structures for the detection of biomarkers of sepsis: results and perspectives.
Stefano Pelli, *IFAC CNR and Fermi Centre – Sesto Fiorentino (FI)*

11:50 Novel arc-discharge fabrication of microbubble resonators and their characterization.
Alessandro Cosci, *Fermi Centre and IFAC CNR – Sesto Fiorentino (FI)*

12:10 Photoactivation of microbubble resonators towards sepsis condition sensing.
Daniele Farnesi, *Fermi Centre and IFAC CNR – Sesto Fiorentino (FI)*

12:30 *Progetto Premiale:* Dose monitoring techniques in hadrontherapy
Vincenzo Patera, *University of Rome La Sapienza and Fermi Centre*

12:50 Measurements of secondary particle yields from hadrontherapy beams
Paola Fralliccardi, *Fermi Centre and University of Rome La Sapienza*

13:10 INSIDE: an integrated monitoring system for the on-line assessment of hadrontherapy treatment accuracy
Michela Marafini, *Fermi Centre and University of Rome La Sapienza*

13:30 Discussion

14:00 *Lunch break*

15:00 Cosmic Silence Project: Underground laboratories as an opportunity to study natural environmental ionizing radiation effects
Luigi Satta, *University of Rome La Sapienza*

15:15 Cosmic Silence Project: Molecular mechanisms involved in the protection from natural environmental ionizing radiation induced oxidative stress; recent results on in vitro pKZ1 mouse hybridoma cells.
Emiliano Fratini, *Fermi Centre* - Rome

15:30 Computational models of brain neurons and microcircuits
Egidio D'Angelo, *University of Pavia and IRCCS C. Mondino* - Pavia

16:00 G-Quadruplex potassium sensors and oncogenic regulators
Simonetta Croci, *University of Parma and Fermi Centre* - Parma

16:30 Discussion and conclusions