



DITEN

Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni
Scuola Politecnica, Università degli Studi di Genova

Corsi di Studio in Ingegneria Elettrica

Marina Putti

Qualifica: Professore Associato, tempo pieno

Settore Scientifico-Disciplinare: FIS01

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Ambiti di insegnamento e ricerca

Fisica Generale, Laboratorio di Fisica, Elettromagnetismo nei materiali, Fisica dei Materiali, Superconduttività.

Breve Curriculum Vitae

Qualifications:

2013: Full Professor Qualification A2/B1

2005: Associate Professor at University of Genova;

1992: Researcher at University of Genova

Education:

1987-90 Ph.D. in Physics at University of Genova

1986. Graduated in Physics at University of Firenze

Professional Interests and Activities:

MP has played a leading role at national and international level in the investigation of MgB₂ and the effect of impurities and substitutions on superconducting properties.

She has been actively involved with collaborative studies with colleagues at USA, Japan and Europe in working to understand the Fe-based superconductors since their discovery.

Main experience in: Thermal and transport properties of superconductors (HTS, borocarbide, MgB₂, Fe-based superconductors). Effect of doping and irradiation in MgB₂ and Fe-based superconductors.

Teaching:

Lecturer of Basic Physics Solid State Physics, Material Physics, Superconductivity.

Supervisor of 27 degree thesis and 9 PhD thesis.

Member of the Ph.D. School of Material Science at University of Genova.

Management tasks and offices:

Principal investigator of:

PRIN2004: Two-gap superconductivity in MgB₂: role of disorder" (2004/2006);

PRIN2006: Multiband superconductivity; MgB₂ and beyond" (2007/2009);

PRIN2008: High T_c superconductivity in Fe-based superconductors: a new challenge for research (2010/2012)

PRIN2012: Using controlled disorder to investigate the mechanisms of iron based superconductors (2014/2017)

Local leader of FP6 project HIPERMAG (2006/2008).

Principal investigator of Italy-USA Significant Bilateral Project (2008-2011)

Principal investigator of the FP7 project coordinated with Japan SUPERIRON (2011-2015).

Leader of the activity on superconductivity at CNR-SPIN (2011-2014)

Organizing Conference:

Chair of the international workshop BOROMAG Genova June 2002.

Chair of Italian Conference of Superconductivity SATT13 Sestri Levante, March 2006.

Chair of the European Conference of Superconductivity EUCAS2013 15-19 September 2013.

Co-organizer of symposiums at MRS spring Meeting 2009, 2012, 2016.

Publications:

More than 200 articles published in international journals with referees. More than 3000 citations, H-index 29.

More than 28 invited talk at international Conferences. Among them: Invited talk at the March Meeting 2006, Plenary lecture EUCAS 2009.

Plenary lecture at ICMC-ICEC 2010, Plenary Lecture at EUCAS 2015.

Referee of international journals such as Physical Review Letters, Physical Review B, Applied Physics Letters, Nature Communication

Since 2010 member of Advisory Board of Superconductor Science and Technology

Since 2015 member of Executive Board of Superconductor Science and Technology

Since 2011 member of European Society for Applied Superconductivity (ESAS)



Corsi di Studio in Ingegneria Elettrica

Pubblicazioni significative

1. F. Cagliaris, A. Braggio, I. Pallecchi, A. Provino, M. Pani, G. Lamura, A. Jost, U. Zeitler, E. Galleani D'Agliano, P. Manfrinetti, M. Putti (2014). Magneto-Seebeck effect in RFeAsO (R = rare earth) compounds: Probing the magnon drag scenario. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 90, p. 134421.
 2. Sanna S, Carretta P, Bonfa P, Prando G, Allodi G, De Renzi R, Shiroka T, Lamura G, Martinelli A, M. Putti (2011). Correlated Trends of Coexisting Magnetism and Superconductivity in Optimally Electron-Doped Oxypnictides. PHYSICAL REVIEW LETTERS, vol. 107, p. 227003.
 3. M. PUTTI, Grasso G (2011). MgB₂, a two-gap superconductor for practical applications. MRS BULLETIN, vol. 36, p. 608
 4. Martinelli A, Palenzona A, Tropeano M, M. PUTTI, Ferdeghini C, Profeta G, Emerich E (2011). Retention of the Tetragonal to Orthorhombic Structural Transition in F-Substituted SmFeAsO: A New Phase Diagram for SmFeAs(O(1-x)F(x)). PHYSICAL REVIEW LETTERS, vol. 106, p. 227001.
 5. Martinelli A, Palenzona A, Tropeano M, Ferdeghini C, M. PUTTI, Cimberle MR, Nguyen TD, Affronte M, Ritter C (2010). From antiferromagnetism to superconductivity in Fe(1+y)Te(1-x)Se(x) (0 ≤ x ≤ 0.20): Neutron powder diffraction analysis. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 81, p. 094115
 6. M. PUTTI, Pallecchi I, Bellingeri E, Cimberle MR, Tropeano M, Ferdeghini C, Palenzona A, Tarantini C, Yamamoto A, Jiang J, Jaroszynski J, Kametani F, Abraimov D, Polyanskii A, Weiss JD, Hellstrom EE, Gurevich A, Larbalestier DC, Jin R, Sales BC, Sefat AS, McGuire MA, Mandrus D, Cheng P, Jia Y, Wen HH, Lee S, Eom CB (2010). New Fe-based superconductors: properties relevant for applications . SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol. 23, p. 034003
 7. C. Tarantini, M. PUTTI, Gurevich A, Shen Y, Singh RK, Rowell JM, Newman N, Larbalestier DC, Cheng P, Jia Y, Wen HH (2010). Suppression of the Critical Temperature of Superconducting NdFeAs(OF) Single Crystals by Kondo-Like Defect Sites Induced by alpha-Particle Irradiation . PHYSICAL REVIEW LETTERS, vol. 104, p. 087002
 8. M. PUTTI, M. AFFRONTI, C. FERDEGHINI, P. MANFRINETTI, C. TARANTINI, AND E. LEHMANN (2006). Observation of the Crossover from Two-Gap to Single-Gap Superconductivity through Specific Heat Measurements in Neutron-Irradiated MgB₂. PHYSICAL REVIEW LETTERS, vol. 96, p. 077003.
 9. M. PUTTI, C.FERDEGHINI, M.MONNI, I.PALLECCHI, C.TARANTINI, P.MANFRINETTI, A.PALENZONA, D.DAGHERO, R.S.GONNELLI, V.A. STEPANOV (2005). Critical field of Al-doped MgB₂ samples: Correlation with the suppression of the s-band gap. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 71, p. 144505 11.
 10. PUTTI M., Braccini V., Ferdeghini C., Gatti F., Manfrinetti P., Marre' D., Palenzona A., Pallecchi I., Tarantini C., Sheikin I., Aebersold H.U., Lehmann E. (2005). Neutron irradiation of MgB₂: from the enhancement to the suppression of superconducting properties. APPLIED PHYSICS LETTERS, vol. 86, p. 112503
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