



DITEN

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

Corsi di Studio in Ingegneria Elettrica

Antonio Sergio Siri

Qualifica: Professore Ordinario, tempo pieno

Settore Scientifico-Disciplinare: FIS 03

Dipartimento di Fisica

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Ambiti di insegnamento e ricerca

Struttura della Materia – Superconduttività – Preparazione e proprietà funzionali di materiali

Breve Curriculum Vitae

- Born in Genova on 03/25/47 - Fellowship since 1974 - Researcher since 1980 - Associated Professor since 1989
 - Winner of a full professor position in 2001 - Full professor of Physics Structure of Matter FIS03 in Genova since 2003 at Physics Dept. Faculty of Science - Genova. - Chair of Physics Laboratory, Structure of Matter and actually of Superconductivity.
 - More than 160 international publications (2500 citations and H-index h=25) since 1990 – 6 patents (2 international).
 - Editor of 4 national and 3 international conference – Several invited in international conference.
 - Coordinator of the experimental research group of low temperature physics in Genova.
 - Director of LAMIA-INFN-CNR Laboratory in advanced materials research from the foundation (2001) to 2009.
 - founder a spin-off Columbus Superconductors with INFN-CNR and private partners for the production of superconducting wire in MgB₂. Currently CS is SpA and international leader on MgB₂ tapes.
 - Experience: Experimental activity on electrical and thermal transport measurements and preparation of advanced materials and devices in bulk and epitaxial thin film in superconductivity and oxide electronics.
- 1974 - 1980: properties of superconductors and amorphous materials at low and very low temperature.
1980 - 1990: superconductivity, 2D electronic gas in MOSFET and heterostructure, QHE.
1990 - 2000: HTc Superconductivity, Laser ablation in MBE condition, artificial superlattices, BiSSCO tapes preparation and characterisation.
2000 - 2014: MgB₂ bulk, film and tapes, Oxide Electronics, field effect devices, all oxide MEMS, printing of functional materials and devices.

Coordinator or local Coordinator of several research project: Progetti Finalizzati Superconduttività del CNR (1980/83) e (89-92) – Progetto Nazionale CISM: QHE (1986/88) - Several Industrial Contract: TEMAV (ENI), CSM, Pirelli, Ansaldo Superconduttori – National Plan Materiali Innovativi Avanzati (temi 20,21,23) (95-98) – Project CLUSTER 26 tema 9 – Project 5% CNR Superconduttività tema 1 – Contract Science CEE ERB-87 400 SC1000031 London (Imperial College) - Orsay - Genova (1989/91) – Contract Science CEE CT-91-0758 London (Imperial College) - Orsay - Genova (1991/93) – Contract Brite Euram CEE BRE2-CT92-0229 : Karlsruhe - Grenoble - London – Genova - Geneve (1992/1995) – Contract Brite Euram CEE BPR-CT95-0030 Karlsruhe - Twente - London - Genova- Geneve (1996/1998) . Contract Brite Euram CEE BIG-POWA · Coordinator of the Contract CEE INCO COPERNICUS ERB IC15 CT98 0802 tra INFN I, UA, UK , BY , D, NI – Commessa CNR Superconduttività (2004-06) – Coordinator FIRB 2005 RBIP06M4NJ – Several PRIN.

Pubblicazioni significative

- 1 **Investigation of FIB irradiation damage in La(0.7)Sr(0.3)MnO(3) thin films** Author(s): Pallecchi, I.; Pellegrino, L.; Bellingeri, E.; et al. Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 320 Issue: 13 Pages: 1945-1951 DOI: 10.1016/j.jmmm.2008.02.171 Published: JUL 2008
- 2 **Field effect in manganite ultrathin films: Magnetotransport and localization mechanisms** Author(s): Pallecchi, I.; Pellegrino, L.; Bellingeri, E.; et al. Source: PHYSICAL REVIEW B Volume: 78 Issue: 2 Article Number: 024411 DOI: 10.1103/PhysRevB.78.024411 Published: JUL 2008
- 3 **Crystalline ZnO/SrTiO₃ transparent field effect transistor** Author(s): Bellingeri, E.; Pallecchi, I.; Pellegrino, L.; et al. Source: PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE Volume: 205 Issue: 8 Pages: 1934-1937 DOI: 10.1002/pssa.200778900 Published: AUG 2008
- 4 **Transport and infrared properties of SmFeAs(O_{1-x}F_x): from SDW to superconducting ordering** Author(s): Tropeano, M.; Fanciulli, C.; Ferdeghini, C.; et al. Source: SUPERCONDUCTOR SCIENCE & TECHNOLOGY Volume: 22 Issue: 3 Article Number: 034004 DOI: 10.1088/0953-2048/22/3/034004 Published: MAR 2008
- 5 **Strain response of La_{0.7}Sr_{0.3}CoO₃ epitaxial thin films probed by SrTiO₃ crystalline microcantilevers** Author(s): Biasotti, M.; Pellegrino, L.; et al. Source: APPLIED PHYSICS LETTERS Volume: 97 Issue: 22 Article Number: 223503 DOI: 10.1063/1.3519478 Published: NOV 29 2010
- 6 **Multistate Memory Devices Based on Free-standing VO₂/TiO₂ Microstructures Driven by Joule Self-Heating** Author(s): Pellegrino, Luca; Manca, Nicola; Kanki, Teruo; et al. Source: ADVANCED MATERIALS Volume: 24 Issue: 21 Pages: 2929-2934 DOI: 10.1002/adma.201104669 Published: JUN 5 2012

European patent A Process for produce optionally doped elemental boron – M.Vignolo, A.S. Siri – Patent: EP 2199258 date: 06/2010
