

## CURRICULUM VITAE OF GIUSEPPE BALESTRINO

### *Cursus Studiorum*

- 1975 Degree in Physics at the University of Roma "La Sapienza" with full marks and honours.
- 1976 - 1978 Fellowship of the National Council of Research, at the Institute of Solid State Electronics in Rome.
- 1979 Visiting Research Associate at the University of Colorado (USA), Dept. of Electrical Engineering.

### *Academic career*

- 1980 - 1987 Staff Researcher of the National Council of Research, Institute of Solid State Electronics, Rome.
- 1987 - 1990 Associate Professor of Physics at University of Salerno.
- 1991 - 1999 Associate Professor of Physics and Solid State Physics at the University "Tor Vergata", Rome.
- Since 2000 Full Professor of Physics of Matter at the University "Tor Vergata", Rome.
- 2008/2009 Invited teacher in the International Master Program "Materials for nanotechnologies and nanoindustry" sponsored by the Russian Corporation of Nanotechnologies
- 2013/2014 Recipient of the Otto Mønsted Guest Professorship at the Technical University of Denmark.

### *Research activity*

The research activity of Giuseppe Balestrino protracted over more than four decades. Throughout his career as a researcher, Balestrino's activity has been focussed mostly on the synthesis and physical investigation of novel materials with interesting physical properties. A specific approach was adopted which foresees following the whole process from materials synthesis (in the form of polycrystalline pellets, single crystals, thin films and complex heterostructures) to their structural and physical characterization. Such an approach allowed a solid grasp on the problem of developing "materials with designed properties". Research was often carried out in cooperation with worldwide recognized experts in the different fields. For instance, an important recognition of his activities came from the Advanced Light Source (Lawrence Berkeley National Laboratories) which invited members of the Balestrino's group to cooperate in setting up a pulsed laser deposition system directly connected with the beam lines. Such "in situ" equipment is now operative and is producing samples for synchrotron characterization. At the same time, young researchers educated on thin films deposition at the Balestrino's group in Rome, have been appointed, with a permanent position, at the National Institute for Materials Science (NIMS) in Tsukuba, to set up a laboratory for the thin films pulsed laser deposition of solid oxide electrolytes. Successively, the Balestrino's group has been involved, in the framework of an IRSES EU project, in a tight cooperation with the Center for Nanophase Materials Science at the Oak Ridge National Laboratory (USA), devoted to the investigation by Electrochemical Strain Microscopy of the electrochemical activity on a nanoscale in oxides for  $\mu$ -SOFC applications.

In 2011 he has received the Ross Coffin Purdy Award from the American Ceramic Society for his achievements in the field of growth of thin films of solid oxides ionic conductors.

The scientific activity of Giuseppe Balestrino resulted in about 250 publications on international scientific journals and in a large number of presentations at international conferences.

He has been invited speaker in several international conferences and gave a plenary talk at the EUCAS'05 conference (September, 2005, Vienna) concerning his activity in the field of artificial superconducting heterostructures.

The H factor of Giuseppe Balestrino is 32 (Scopus and ISI Web of Knowledge), the overall number of citations is over 4000 (Scopus)

### ***Membership in Scientific Committees and Organizing Committees***

Giuseppe Balestrino has been member of the Scientific Committee of THIOX (Thin oxide films) network of the European Science Foundation), FOXE (National Conference on Functional Oxide Electronics) and SATT (Conferenza sulla Superconduttività ad Alta Temperatura). He is member of the Scientific Committees of WOE (International Workshop on Oxide Electronics).

He has participated in the organization of several meetings and conferences as a member either of the organizing or the scientific committee, among them the large International Conference on the Application of the Mössbauer Effect (ICAME 85). More recently, Giuseppe Balestrino has been appointed as Chairman of the Committee "Materials" for EUCAS 2013.

### ***Coordination of research projects***

G. Balestrino has been responsible for several scientific cooperation programs both national (mostly funded by the National Council of Research and by the Department of the University and Research, MIUR), and international.

Hereafter a restricted selection of funded projects:

- INTAS program 96-0452 between European countries and Russia (Local Coordinator).
- Galileo cooperation program between Italy and France (National Coordinator).
- Cooperation program between the University of Roma Tor Vergata and the Moscow Institute of Steel and alloys, 1992-94 (Principal Investigator).
- Project of Advanced Research of the Istituto Nazionale di Fisica della Materia (PRA 1996): "High temperature Superconducting superlattices" (Principal Investigator).
- Project of Relevant National Interest of MIUR (PRIN 1998): "Synthesis of new high T<sub>c</sub> materials by thin film growth techniques" (Scientific Coordinator).

### ***Activities concerning evaluation***

Giuseppe Balestrino has acted as a referee of R&D projects for several national and international organizations, among them:

- Evaluator of Ministero delle Attività Produttive for precompetitive industrial research programs (legge 46/82)
- Referee of INTAS (The International Association for the Promotion of Co-operation with Scientists from the New Independent States (NIS) of the Former Soviet Union)
- Referee of FWF (Fonds zur Förderung wissenschaftlichen Forschung, Austria)
- Referee of the Netherlands Organisation for Scientific Research, Chemical Sciences.

He has been a member of the evaluation board in many public competitions for permanent positions both for the National Council of Research and the Ministry of University. Among

them the competition for 17 positions of Research Director in the area of physical sciences at the National Research Council (CNR notice n. 3647, 2004), the competition for the position of Director of Istituto superconduttori, materiali innovativi e dispositivi SPIN- CNR, (CNR notice n. 360.367, 2020).

**Based on his scientific curriculum, Giuseppe Balestrino has been selected by the Italian Ministry of Education (call 2012, call 2016 and call 2018) in the short list of experts eligible as evaluators for the national procedure for the selection of university professors of Physics of Matter.**

**see Lista degli Aspiranti Commissari sorteggiabili at:**

**<https://abilitazione.miur.it/public/commissioni.php?sersel=16&#idx-6>**

### ***Teaching activities and Academic Positions.***

The teaching experience of Giuseppe Balestrino spans over almost forty years and concerns mostly teaching General Physics and Condensed Matter Physics at the Engineering School of Salerno and Roma "Tor Vergata". Presently Giuseppe Balestrino is teaching the Physics 2 course for the Bachelor's degree in "Medical Engineering".

Giuseppe Balestrino has supervised more than 10 PhD theses.

He has been in charge (Coordinatore del Corso di Studio) of the English Master Program in "Mathematical Engineering" of the University of Roma "Tor Vergata", a program addressed to talented students from Mathematics, Physics and Engineering.

In the past Giuseppe Balestrino has been Deputy Director of the Dipartimento di Ingegneria Civile ed Ingegneria Informatica (DICII) of the University of Roma "Tor Vergata".

Presently he is Responsible for the Quality Evaluation Process of DICII. He is member of the board (Giunta) of DICII and of the board of the Engineering School of "Tor Vergata".

