Piero Rapagnani Curriculum Vitae

Personal Informations

Name / Family Name	Piero Rapagnani
Address	Via Gabriello Chiabrera 144 I-00145 Roma
Tel. Number	+39 333 2926146
E-Mail	piero.rapagnani@roma1.infn.it
Country	Italy
Date of Birth	16/07/1954
Gender	male
Civil Status	Married

Current Position

Position	Professore Associato
Department	Dipartimento di Fisica, Università di Roma “La Sapienza”
Address	P.le A. Moro 2 – 00185 Roma
Tel. Number	+39 06 49914210
E-mail	piero.rapagnani@roma1.infn.it

Academic Curriculum

2001 Nov. 1st	Becomes “Professore Associato” at Dipartimento di Fisica of Università di Roma “La Sapienza”.
1987 Feb. 19th	Becomes “Ricercatore Confermato” at Dipartimento di Fisica of Università di Roma “La Sapienza”.
1984 Feb. 19th	Becomes “Ricercatore” at Dipartimento di Fisica dell’Università di Roma “La Sapienza”.
1983 Jul. 13th	Wins a grant of CNR to work with Radio Frequency Group, directed by Dr. P.Bernard, EF Division at CERN.
1983 June-May	Becomes IR Systems Engineer at SISTEL in Rome.
1979 Nov. 12th – 1980 Nov. 4th	Military Service.
Settembre 1979 Sep. 20th	Wins a grant of ENEA “Misure di interferometria ottica multicanale” (n.18 del bando del 23/2/1979), to work with the Fusion Division of ENEA Centre in Frascati, Italy.
1978 Nov. 29th	Laurea degree in Physics “cum laude” at Dipartimento di Fisica of Università di Roma “La Sapienza” con votazione 110/110 e lode discutendo una tesi dal titolo: “Misura del Rumore Browniano di un’antenna gravitazionale a 4.2 K”, relatore il prof. Ivo Modena.
Luglio 1973	“Maturità scientifica” at Liceo Scientifico Statale “S. Cannizzaro” in Rome.

Research activity

- **Introduzione**
- **1979-1982 Post-Laurea Research Acitivty**
- **1981 Development of a resonant capacitive transdcuer**
- **1981-1990 Assembly and Commissioning of EXPLORER Resonant GW Antenna at CERN**
- **1989-1995 Development of BAE Transducers (Back Action Evasion)**
- **1990-1995 Assembly and commissioning of NAUTILUS al CERN**
- **1995 Beginning of collaboration in Virgo**
- **1996-2001 Assembly and Commissioning of Virgo Central Interferometer, as responsible of last stage suspensions (Payloads)**
- **2001-2003 Assembly and Commissioning of Initial Virgo**
- **2002-2008 Collaboration in AMS2 experiment**
- **2004-2008 Proposal of ILIAS-STREGA JRA in FP6**
- **2003-2007 First Scientific Run of Virgo and agreement with LIGO**
- **2008-2011 Assembly and Commissioning of Virgo+ with Monolithi Suspensions, as Detector Coordinator**
- **2008-2012 Design Study of ET (Einstein Telecope) in FP7, as Coordinator of Working Group 2 (Mirror Suspension and Control)**
- **2010-2012 Design and construction of Advanced Virgo, as PAY SubSystem Manager**

Piero Rapagnani started his research activities in the Rome Gravitational Wave Group. His main interest has been in the development of high sensitivity capacitive transducers for the cryogenic resonant gravitational wave antennas of the Rome Group: Explorer, now taking data at CERN, with an operating temperature of 2 K, and Nautilus, an ultracryogenic antenna cooled at 100 mK, now in operation at the Laboratori Nazionali dell'INFN, in Frascati. The same kind of transducer has been used also on the Auriga ultracryogenic antenna, now taking data at the Laboratori Nazionali dell'INFN, in Legnaro, and an inductive versione has been developed for the Allegro resonant antenna of the Lousiana State University Gravitational Wave Group. In the period 1988-1994 Piero Rapagnani has worked on the development of a parametric transducer for gravitational antennas, showing for the first time the Back Action Evasion Effect (BAE) on the detection of the motion of a resonator in the classical regime.
Since 1995 he is subsytem manager of the Virgo project, and is in charge of the design and construction of the last stage active supensions of the optical elements of the gravitational wave interferometer. The central part of the interferometer has been completed with success in 1999, while the construction of the whole detector ended in july 2003.
In 2007 Virgo had its first scientific run (VSR1) in concidence with LIGO detectors. In 2008 Piero Rapagnani was appointed Detector Coordinator of Virgo. In this role, he coordinated the upgrade of Virgo with monolithic suspensions.
Currently (2012), Piero Rapagnani is the SubSystem Manager for Suspension and control of optics in Advanced Virgo, the upgrade of the machine which is now being installed. If this upgrade will be successful, the new detection range of the antenna should allow us to have an observation rate of a few events per year.

Responsabilities

2001-2003 Member of “Giunta del Dipartimento di Fisica” of Università di Roma "La Sapienza".
2004-2011 Scientific and Administrative Coordinator of Gruppo II (Astroparticle Physics) of Sezione INFN di Roma "La Sapienza". Member of the Second Scientific National Comittee of INFN.
2005-2010 Meber of the INFN Comittee for Technological Transfer.
2005 Convener of the working group of the INFN Roadmap on gravitational waves.
2007-2008 Responsible of Working Group 2 (Mirrors Suspension and Control) of the FP7 European project for the Design Study of ET, a 3rd generation gravitational interferometer.
2008-2011 Detector Coordinator of Virgo.
2008-Oggi SubSystem Manager suspension and control of optical elements in Advanced Virgo.
2008-2012 Member of Consiglio Didattico for the PhD courses of Dottorato in Astronomia e Astrofisica di Roma “La Sapienza”.
2012 Member of Consiglio Didattico of the new Dottorato Congiunto in Astronomia e Astrofisica di Roma La Sapienza e Roma Tor Vergata.