

## FAUSTO VAGNETTI: Curriculum Vitae

- Born in Rome, 25.03.1950
- Address: Dipartimento di Fisica, Università di Roma Tor Vergata, via della Ricerca Scientifica 1, 00133 Roma, Italy
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### Education

- Degree in Physics with honor, 1974, Università di Roma La Sapienza, thesis on cosmological applications of Brans-Dicke Theory (final mark 110/110 cum laude)

### Present position

- Associate Professor of Astrophysics at the Università di Roma Tor Vergata, since October 2004

### Previous appointments

- Assistant Professor, Università di Roma Tor Vergata, 1987-2004
- NATO Fellow, European Southern Observatory, 1988-1989
- Assistant Professor, Università di Roma La Sapienza, 1981-1987
- Research Staff, Istituto di Astrofisica Spaziale CNR, Frascati, 1982 (withdrawn)
- Research Fellow, Istituto di Astrofisica Spaziale CNR, Frascati, 1977-1981
- CNR Research Grant on Gravitational Waves, 1976 (withdrawn)
- MPI Research Grant, 1976 (withdrawn)
- Pre-graduate Scholarship, Fondazione Angelo Rella Riccia, 1973

### RESEARCH INTERESTS

Active Galactic Nuclei - Cosmic evolution and demography - Variability - X-ray/optical ratio - Broad Line Region - Unified Schemes - Supermassive Black Holes

### Main contributions:

- Optical/UV and X-ray variability of Active Galactic Nuclei: analysis of statistical samples, Structure Function, Spectral Variability Parameter, dependence of variability on luminosity, redshift, rest-frame wavelength
- X-ray/UV ratio and its variability: spectral index  $\alpha_{OX}$  and its anticorrelation with the UV luminosity; effect of variability on the dispersion; artificial and intrinsic variability; intra-source and inter-source dispersion; study of samples with simultaneous X-ray/UV data; disk-corona relation
- UV catalogue of the XMM-CDFS Deep Survey in the Chandra Deep Field-South
- Variability of absorption lines in BAL quasars: ongoing monitoring of the CIV broad absorption trough in the quasar APM 08279+5255 ( $z=3.911$ ) since 2003, and its relation with the variability of the ionising flux
- Reverberation mapping of luminous quasars: estimate of the Broad Line Region size and of the Black Hole mass for the quasars PGI 247+268 ( $z=2.042$ ) and APM 08279+5255 ( $z=3.911$ )
- Selection of variable AGN candidates: in the Chandra Deep Field South, in the Selected Area 57, in the COSMOS field
- X-ray and optical Survey in Selected Area 57: detection of X-ray sources, selection of variable objects, follow-up optical spectroscopy; study of the galaxy cluster Zw 1305.4+2941
- Unified Schemes: evolutionary continuity between BL Lac Objects and Flat Spectrum Quasars, Evolutionary Unified Scheme. Study of populations of radio sources in the viewing angle-redshift plane. Study of radiogalaxies in X-rays; spectral variability of BL Lac Objects
- Luminosity Functions: Continuity Equation and evolution of the AGN population in the luminosity-redshift plane
- previous interests and activities: gravitational Brans-Dicke Theory, evolution of protogalaxies

## **TEACHING**

- Lecturer of Elements of Astrophysics, and Extragalactic Astrophysics since 2002, Università di Roma Tor Vergata
- Lecturer of General Physics, 1997-2002, Università di Roma Tor Vergata
- Previous activity as Teaching Assistant in General Physics, General Relativity, Astrophysics, Informatics, at Universities of Roma La Sapienza and Roma Tor Vergata
- Supervisor of 5 PhD students, 8 Master students, 28 Bachelor students

## **OTHER APPOINTMENTS**

- Referee for Astronomy & Astrophysics, Monthly Notices of the Royal Astronomical Society, Astrophysical Journal, New Astronomy, Frontiers in Astronomy and Space Science, Universal Journal of Physics and Application
- Member of the Editorial Board, Universal Journal of Physics and Application
- Referee for the Ministry of Public Education (MIUR) for the Evaluation of Research Quality (VQR), Scientific Independence of Young Researchers (SIR), Rita Levi Montalcini Program, Rientro dei Cervelli, AVA system for the evaluation of university study programs
- Lecture coordinator of the international master Astromundus, Università di Roma Tor Vergata, 2010-2011
- Lecture coordinator of the Laurea Specialistica in Scienze dell'Universo, Università di Roma Tor Vergata, 2003-2009
- Member of the Didactic Committee of the Department of Physics, 2004-2016
- Member of the Board of Faculty of the Phd program in Astronomy, Astrophysics and Space Science, Università di Roma Tor Vergata, 2006-2014
- Director of the Computing Service, Dipartimento di Fisica, Università di Roma Tor Vergata 1998-99
- Member of the Administration Board, University Roma Tor Vergata 1995-99
- Member of Astronomical Research Council (CRA), Ministry of Public Education, 1987-91
- Member of the International Astronomical Union (IAU) and of the European Astronomical Society (EAS)
- Associate to INAF and INFN

## **PUBLICATIONS**

- 126 publications, 50 refereed publications ([http://adsabs.harvard.edu/cgi-bin/abs\\_connect?author=vagnetti&db\\_key=AST&db\\_key=PRE](http://adsabs.harvard.edu/cgi-bin/abs_connect?author=vagnetti&db_key=AST&db_key=PRE))
- 901 citations, h-index=17, (<https://scholar.google.it/citations?user=vagnetti>)

Roma, October 2017, Fausto Vagnetti