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# Tiziano Valentinuzzi

Personal info

- Birth Date: July 2, 1972
- Birth Place: Palmanova (UD) Italy
- Address: via IV Novembre, 14 36020 Albettone (VI) Italy

Instruction

1994 - 2002

University of Padova

Astronomy Degree

■ 18 March 2003 - Doctor in Astronomy (104/110).

27 April 2007

Università degli studi di Padova

PhD in Astronomy

Military Service

Partial discharge (1 year assistance to children with handicap)

# Scientific Referred Papers

- Valentinuzzi, T. et al (2010), "Superdense massive galaxies in the ESO Distant Cluster Survey (EDisCS)", ApJL, submitted.
- Fasano, G. et al (2010), "The shapes of BCGs and normal ellipticals in nearby clusters", MNRAS, 404,1490F.
- Vulcani, B. et al (2010), "Galaxy stellar mass functions of different morphological types, and their evolution between z=0.8 and z=0", MNRAS, submitted.
- Fasano, G. et al (2010), "The shapes of BCGs and normal ellipticals in nearby clusters", MNRAS, 404,1490F.
- Valentinuzzi, T. et al (2010), "Superdense Massive Galaxies in WINGS Clusters", ApJ, 712, 226.
- Valentinuzzi, T. et al (2009), "WINGS III Deep near-infrared photometry of 28 nearby clusters.", A&A, 501, 851.
- Poggianti, B.M, et al (2009), "The Evolution of Spirals, S0 and Elliptical galaxies in Clusters", ApJL, 697, 137.
- Varela, J., et al. (2009), "WINGS II Deep optical photometry of 77 nearby clusters.", A&A, 497, 667.
- Cava A., et al. (2009), "WINGS-SPE Spectroscopy in the Wide-field Nearby Galaxy-cluster Survey.", A&A, 495, 707.
- Caimmi R., Valentinuzzi T. (2008), "The fractional virial potential energy in two-component systems.", SerAJ, 177, 15.
- Valentinuzzi T. (2006), "Models of Clausius Virial Maximum Energy and the Fundamental Plane of Elliptical Galaxies", PhD Thesis, Università di Padova, 2006.

- D'Onofrio M., Valentinuzzi T., Secco L., Caimmi R., Bindoni D. (2006), "Toward Understanding the origin of the Fundamental Plane of Early Type Galaxies", New Astronomy Reviews, 50,447.
- Caimmi R., Marmo C., Valentinuzzi T. (2005), "A numerical fit of analytical to simulated density profiles in dark matter haloes", SerbAJ, 170, 13.
- Valentinuzzi T. (2003), "The Fundamental Plane of elliptical Galaxies", Master Thesis.
- Tomov T. et al. (1996), "Monitoring MWC 560=V694 Monocerotis in 1990-1995. Conventional and high-speed UBV photometry", A&A, 116, 1T.
- Munari U. et al. (1993), "BV Photoelectric Photometry of SN1993J in M81", IBVS, 3905, 1M.

# Conference Proceedings and other papers

- Valentinuzzi, T. et al (2010), "Superdense Massive Galaxies in local and high-z galaxy clusters", contributed talk at International Astronomical Congress CLJ2010+0628 held in Kashiwa, Tokyo, JAPAN. 28<sup>th</sup>June/02<sup>nd</sup>July 2010.
- Valentinuzzi, T. et al (2010), "Tidal energy effects of dark matter halos on early-type galaxies", article in Book "Energy Research Developments: Tidal Energy, Energy Efficiency and Solar Energy" published by NOVA PUBLISHERS, Editors: Kenneth F. Johnson and Thomas R. Veliotti.
- D'Onofrio M. et al. (2009), "Comparing the Fundamental Plane of Early-Type Galaxies in the V and K bands" Joint Discussion: Dark Matter in Early-Type galaxies IAU-GA, August 3-5, 2009.
- Valentinuzzi T., Woods D., Riello M. (2008), "WINGS-NIR Deep Near Infrared survey of 28 nearby galaxy clusters", CONFERENCE "JENAM 2008", 8/12 Settembre, Università di Vienna, AT.
- Valentinuzzi, T. (2006), "Clausius Virial Theory and the energy conservation paradigm", CONFERENCE "From Stars to Galaxies", 16/20 Ottobre, Istituto Veneto di Scienze, Lettere ed Arti, VENEZIA, IT
- Bindoni et al. (2006), "Test of Clausius' Virial dynamical theory", CONVEGNO "IAU XXVIth Assembly", 14/25 Agosto, PRAGA, CZ.
- Valentinuzzi T. et al. (2006), "The 3D Topology of the Clausius Virial", CONVEGNO "IAU XXVIth Assembly", 14/25 Agosto, PRAGA, CZ.
- Secco L. e Valentinuzzi T. (2004), "Interpretation of the fundamental plane by using tensor virial theorem", CONFERENCE "THE MANY SCALES OF THE UNIVERSE", 13/17 settembre, Joint European and National Astronomical meeting, GRANADA, SP.
- Valentinuzzi T. et al. (2003), "Violent relaxation of galactic dark matter halos", Cineca Reports, Bologna.
- Valentinuzzi T. et al. (2003), "Wings project and the fundamental plane of elliptical galaxies", CONFERENCE "DYNAMICS AND EVOLUTION OF GALAXIES", May 19<sup>th</sup>/20<sup>th</sup>, Accademia nazionale dei Lincei, ROME.

- Valentinuzzi T. (1998), "Handbook of calibration and use of the Pennar CCD at the Asiago 1,22m telescope", Published for the Astrophysical Observatory of Asiago, ITALY.
- Tomov T. et al. (1996), "Monitoring MWC 560=V694 Monocerotis in 1990-1995. Conventional and high-speed UBV photometry", A&A, 116, 1T

## Courses and Workshops

- Python (2009) 6 months course on Python programming. OAPD INAF.
- Java (2008) 2 months course on Java programming. OAPD INAF.
- Science with AstroWise (2008) 5 days on AstroWise software, Lorentz Center, Leiden (NL).
- Euro-VO-DCA workshop (2008) 5 days workshop on database and catalog pubblication with EURO-VO Virtual Observatory, MPI, Garching, (DE).

#### Teaching

- 2009/2010 Teaching in secondary school at the istituto comprensivo "Dante Alighieri" of Orgiano (VI), as maths and science teacher.
- 2008/2009 Supervisor for a Astronomy master thesis at the University of Padova.
- 2007/2008 Teaching in secondary school at the istituto comprensivo "B. Bizio" of Longare (VI), as maths and science teacher.
- 2007/2008 Tutor at the Padova University Astronomy Department "Laboratorio di Astronomia I".
- 2007/2008 Tutor at the Padova University Astronomy Department "Tecniche di Misurazione Astrofisiche".
- 2006/2007 Tutor at the Padova University Astronomy Department "Tecniche di Misurazione Astrofisiche".
- 2006/2007 Teaching in secondary school at the "Leonardo da Vinci" di Noventa Vicentina (VI).

#### Outreaching

- Year 2010, Public lectures in astronomy at Agugliaro (VI), Noventa Vicentina (VI).
- Year 2009, Public lectures in astronomy for the International Year of Astronomy at Conselve (PD), Villafranca Padovana (PD), Albettone (VI), Bologna (BO) in occasione dell'anno internazionale dell'astronomia.
- Year 2009, "COSMOCROMIE" a 3 public conferences cicle on astronomy, Complesso Monumentale S. Paolo, Monselice, PD, IT.
- Gen/May 2008, "Save the Energy of the planet..." lectures with

secondary school students, Longare (VI).

• 10 Nov 2007, "From the Big Bang to the present day." – lectures with secondary school students, Noventa Vicentina (VI)

# Astronomy related computer software knowledge

- Advanced knowledge of reduction and analysis of science images with IRAF.
- Advanced knowledge of photometric tools for wide-field source extraction and analysis such as MONTAGE and SWARP (mosaicking), SEXTRACTOR (source extraction), GASPHOT (automated surface photometry and profile fitting), MORPHOT (automated morphological classificatory for wide fields).
- Basic knowledge of SED fitting software like HYPERZ-MASS and SIMSPEC
- · Python astronomical libraries
- Construction and use of MySQL web and script based astronomical databases

#### **Known Languages**

Advanced knowledge of English language

## Computer Knowledge

- In-depth knowledge of Basic and Visual Basic programming.
- Advanced capacity in Python and object oriented programming
- Advanced knowledge of MySQL database programming and querying.
- Introductory knowledge of Fortran programming.
- In-depth knowledge of the basic Windows XP tools, Office, VAX, LINUX and UNIX.
- Advanced knowledge of softwares like Adobe, Corel Draw, Power Point, Matematica, Mathlab, Derive, good attitude to graphics and design.
- Basic knowledge of Autocad 2006.
- Advanced knowledge in photometric and spectroscopic reduction of science images with IRAF.
- Advanced knowledge of photometric tools for wide-field imaging with MONTAGE, SEXTRACTOR e GASPHOT.

IN CONFIDENCE

Dr. Tiziano Valentinuzzi

Elleus/mm'