Curriculum Vitae

COMASTRI Andrea
Italian, Born in: Bologna (Italy) August 2, 1962
Married, 3 daughters

Professional and Educational History:

2015-Date: Director INAF – Astrophysics and Space Science Observatory of Bologna
2016-Date: Senior Astronomer at INAF Bologna Observatory, Italy
2003-2016 Associate Astronomer INAF Bologna Observatory
1994-2003 Astronomer INAF Bologna Observatory
1992-1994: Post-Doc, Max Planck Institut für Extraterrestrische Physik (MPE), Germany
PhD in Astronomy, University of Bologna (1992)
Undergraduate Diploma in Astronomy, *summa cum laude*, Bologna University (1986)

Teaching activities and Trained Students :

-Kingsley Visiting Professor at Caltech, USA (2014-2015)
-Professor of High Energy Astrophysics, Physics Dept., Ferrara University, Italy (2005-2011)
-Contract Professor of Space Physics at the Astronomy Dept., Bologna University, Italy (2000-2002)
-High Energy Astrophysics Lecturer at many PhD and undergraduate schools
-Advisor of many (> 20) Master Thesis and numerous (> 10) Ph.D. Thesis at the Astronomy Dept., Bologna University, Italy

Eight former students of mine got a permanent position in various Universities and Research Institutes both in Italy and abroad. Four of them are now Associate/Assistant Professors.

Awards

"Maria Teresa Messori Roncaglia ed Eugenio Mari" Prize of Accademia Nazionale dei Lincei (2014) for his studies on the physics and evolution of cosmic X-ray sources and their contribution to the the X-ray background

Visiting Programs and International Collaborators

- Visiting Astronomer at the Center for Astrophysics (Cambridge, USA)
- Visiting Astronomer Radiation Cosmic Laboratory - RIKEN (Tokyo, Japan)
- Visiting Astronomer at Max Planck Institut fur Extraterrestrische Physik (Garching, Germany)
- Visiting Astronomer at California Institute for Technology (USA)

Successful Observing Proposals and Funding ID Record

Large observational experience with essentially all the X—ray observatories in the last two decades: ROSAT, ASCA, BeppoSAX, Chandra, XMM, Suzaku, NuSTAR. Principal Investigator of observing proposal at various ground based telescopes (i.e. TNG, ESO 3.6 m & VLT) as well as with the infrared *Spitzer* satellite. First PI able to get the largest amount of XMM time (~ 3 Ms) in a single proposal. Key co—I of large international multi wavelength survey programs (COSMOS, CDFS, XMM-XXL, Stripe82).
PI of a large number of successful funding projects:
i) Research Grants from Italian Research Minister (PRIN MIUR) from the Minister of Foreign Affairs and from INAF -for a total funding of approximately 300 K-Euro.
ii) Italian Space Agency (ASI): about ten contracts to support archival data analysis, proprietary data analysis, future space missions, for a total funding of about 300 K-Euro over the last 10 years.
iii) European Community IEF Marie Curie action and SPACE Cooperation Grant

Additional Information

Andrea Comastri is a member of the ATHENA WFI Science Team and Consortium Board and Italian representative of the WFI consortium in ATHENA. Chair of the ATHENA Science Working Group on X-ray Surveys and high-z AGN.
He has served as panelists and chair of Observing Programs Time Allocation Committee of ESO Telescopes and many X-ray space missions and in particular Chandra and XMM. He is a Member of the NASA/NuStar Science Team. He served as a member of the XMM User Group.
Chair of the Scientific Organizing committee for several international and national conferences and workshops
He serves as Referee for most of the Astrophysics International Journals, for the European Community Grants for the FP7 and H2020 programs and for the Italian Research Minister.

Research Interests

During his career he has mainly worked on the X-ray observations of Active Galactic Nuclei (AGN) and population Synthesis models for the X-ray background.
He has been deeply involved in most of the X-ray surveys carried over by several X-ray missions and the follow up multiwavelength observations performed with both ground and space based observatories.
His most relevant achievements concern the role of obscured and heavily obscured Supermassive Black Holes in the framework of AGN demography and in particular their contribution to the X-ray background and to the joint growth of Black Holes and their host galaxies. The results were obtained thanks to a massive exploitation of major surveys data obtained first with BeppoSAX, later with XMM and Chandra and, most recently, with NuSTAR.
The light up and early evolution of high redshift ($z > 3$) quasars was pioneered by his group since a decade highlighting the need of deep and large X-ray surveys to trace their cosmic history since the very early phases deep in the reionization era ($z > 6$). The strong scientific case on the surveys of the first accreting black holes in the Universe of the ESA X-ray mission ATHENA, was built upon the scientific heritage obtained mainly by his group.
His present scientific activities is concentrated on the search for and the characterization of the most obscured accreting sources and the nature of the first supermassive black holes in the early Universe.

Publications

During his career he has published about **350 papers** in peer review refereed journals (more than 22,600 citations and H—index of 75 from ADS; about **31,000 citations** and **H—index of 86** from Google Scholar). He has given approximately 40 invited talks and review in the last 15 years.

Selected References

Reynes A.E. **& Comastri A.**, 2016 *Observational Signatures of High-Redshift Quasars and Local Relics of Black Hole Seeds PASA 33, 54* ***(45 cit.)***

Civano F., Marchesi S., **Comastri A.**, et al 2016. *The Chandra COSMOS Legacy Survey: Overview and Point Source Catalog ApJ 819, 62* ***(169 cit.)***

Comastri A., Gilli R., Marconi A., Risaliti G., Salvati M. 2015 *Mass without radiation: Heavily obscured AGNs, the X-ray background, and the black hole mass density* A&A, 574, L10 **(34 cit.)**

Lusso E., **Comastri A.,** Simmons D.B. et al 2012 *Bolometric luminosities and Eddington ratios of X-ray selected active galactic nuclei in the XMM-COSMOS survey* MNRAS 425, 623 **(189 cit.)**

Comastri A., et al 2011: *The XMM Deep Survey in the CDFS I. First results on heavily obscured AGN* A&A, 526, L9 **(113 cit.)**

Brusa M., Civano F., **Comastri A.** et al. 2010 *The XMM-Newton Wide-field Survey in the Cosmos Field (XMM-COSMOS): Demography and Multiwavelength Properties of Obscured and Unobscured Luminous Active Galactic Nuclei* ApJ 716, 348 **(248 cit.)**

Brusa M., **Comastri A., Gilli R.,** et al. 2009 *High Redshifts Quasars in the COSMOS Survey: The Space Density of X-ray Selected QSOs* ApJ 693, 8 **(96 cit.)**

Gilli R., **Comastri A.,** Hasinger G. 2007: *The synthesis of the cosmic X-ray background in the Chandra and XMM-Newton era,* A&A 463, 79 **(623 cit.)**

Comastri A. 2004*: Compton-thick AGN: the dark side of the X-ray background,* 2004 Kluwer Academic Publishers, 308, p. 245-272 **(113 cit.)**

Ranalli P., **Comastri A.**, Setti G. 2003*: The 2-10 keV luminosity as a star formation rate indicator,* A&A 399, 39 **(519 cit.)**

Comastri A., et al. 2002*: The HELLAS2XMM survey: II. Multiwavelength observations of P3 an X-ray bright optically inactive galaxy* ApJ 571, 771 **(136 cit.)**

Comastri A., Setti G., Zamorani G., Hasinger G. 1995: *The contribution of AGN to the X-ray background,* A&A 296, 1 **(557 cit.)**

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