Curriculum Vitae

Last Name: COMASTRI
First Name: Andrea
Sex: Male
Nationality: Italian
Born in: Bologna (Italy) August 2, 1962
Married, 3 daughters

Contact Details

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Il presente CV e' composto di due parti: la prima riguarda gli incarichi di "management" e gestione riferiti al triennio 2015—2017, corrispondente all'incarico di Direttore dell'Osservatorio Astronomico di Bologna; la seconda - in inglese - riguarda l'attivita' scientifica, didattica e quella gestionale piu' strettamente legata agli aspetti della ricerca scientifica.

Management e Gestione

2017 : Membro del Gruppo di Raccordo dei Direttori INAF
2017 (dal 5 Maggio al 30 Giugno) Direttore Reggente INAF -- Istituto di Radioastronomia
2015-2016 Membro del Gruppo di Lavoro per la predisposizione della proposta di candidature dell'INAF ad ospitare gli HQ di CTA
Dal 1/1/2015: Direttore INAF – Osservatorio Astronomico di Bologna
Dal 2014: Coordinatore della partecipazione Italiana al consorzio WFI per la missione ESA L2 Athena

Nel corso dell'ultimo triennio, durante il mandato di Direttore dell'Osservatorio Astronomico di Bologna (OABO), ho acquisito le competenze amministrative necessarie alla corretta gestione dell'ordinaria amministrazione della struttura.
Sul versante che riguarda la politica scientifica ho promosso delle linee guida per l'attivazione degli assegni di ricerca e una "review" di tutte le attivita' sia di ricerca scientifica e tecnologica, che di tipo amministrativo e di servizio, svolte dal personale interno.

A partire da Settembre 2015 ho attivamente contribuito – in collaborazione con Pino Malaguti – alla stesura della proposta INAF per ospitare gli Head Quarters e/o il Science Data Management Center di CTA.
A tal fine ho curato personalmente i rapporti con il Rettore dell'Universita' di Bologna, gli uffici del Sindaco e dell'assessore alla mobilita' del Comune di Bologna e con gli uffici della Regione Emilia Romagna. Come e' noto gli Head Quarters di CTA sono ospitati a Bologna nella stessa sede che ospita OABO. Fin dal loro insediamento, contestuale a quello di OABO, l'amministrazione e la direzione di OABO si occupano di molteplici aspetti di carattere tecnico e organizzativo per gli Head Quarters.

Nel corso del mio mandato ho supervisionato e gestito il trasloco della sede di OABO, e del settore di Astronomia del Dipartimento di Fisica e Astronomia (DIFA), presso il nuovo plesso del Battiferro. Oltre alle questioni tecniche –il trasloco ha riguardato circa 120 postazioni di lavoro e diversi locali adibiti a laboratorio e magazzino— e' stato necessario curare i rapporti con l'Universita' di Bologna, sia sul versante politico (Rettore, ProRettore all'Edilizia, Direttore Generale) che su quello tecnico (Ufficio Tecnico e Area del Patrimonio).

E' stato recentemente raggiunto un accordo per la definizione della quota INAF (OABO+CTA) degli oneri gestionali che fa parte integrante dell'atto di modifica della promessa di vendita di quota parte dell'edificio che ospita la nuova sede di OABO. La documentazione e' stata inviata all'attenzione del Consiglio di Amministrazione di INAF. Si sono intrapresi i colloqui per definire la convenzione fra INAF-OABO e DIFA-UNIBO per la condivisione di spazi e servizi per la ricerca.

Nel luglio 2016 e' stato inaugurato il Planetario presso la Stazione Astronomica di Loiano e rinnovata l'offerta delle attivita' di didattica e divulgazione, sia dal punto di vista organizzativo che finanziario. E' stata firmata una nuova convenzione con il Comune di Loiano e un accordo con l'associazione SOFOS per la gestione delle attivita' di divulgazione che ora sono completamente finanziate dall'incasso di biglietti e da contribute esterni.
Nel corso del 2017 ho definito delle linee guida per l'utilizzo scientifico del telescopio da 152 cm. Si favoriscono programmi ritenuti strategicamente importanti quali il "follow up" delle surveys di Gaia e le attivita' che si inseriscono nel tema di "Space Surveillance & Tracking". I programmi di tracking di detriti spaziali sono finanziati dalla comunita' europea e renderanno possibile un importante "upgrade" sia della strumentazione che della "remotizzazione" del telescopio e contribuiranno significativamente alla sriduzione delle spese per personale e funzionamento, attualmente a carico di OABO.

Nel bimestre Maggio—Giugno 2017 ho ricoperto l'incarico di Direttore Reggente dell'Istituto di Radioastronomia (IRA). Oltre alla gestione dell'ordinaria amministrazione, ho avviato i colloqui con il responsabile del Settore Museale di UNIBO e il Direttore del DIFA per studiare la messa in sicurezza e l'eventuale recupero del ramo est-ovest dell radiotelescopio Croce del Nord a Medicina.

Professional and Educational History:

2016 August 1st – date: Dirigente di Ricerca at INAF Osservatorio Astronomico di Bologna
2003- 2016: Associate Astronomer INAF Bologna Observatory, Italy
1994-2003: Astronomer INAF Bologna Observatory, Italy
1994: Post-Doc Astronomy Department Bologna University
1992– 1994: Post-Doc, Max Planck Institut für Extraterrestrische Physik (MPE), Germany
December 1991 – PhD degree, University of Bologna. Supervisor: Prof. Giancarlo Setti
Thesis: "*X-ray spectral properties of AGN and the Cosmic X-ray background"*
1988 – 1991: Post-Graduate studies, Department of Astronomy, Bologna University, Italy
December 1986: Undergraduate Diploma in Astronomy*, summa cum laude*, Bologna University.
Thesis: *"Solution of the Einstein-Strauss problem with a Λ term"* Supervisor: Prof. Roberto Bergamini

ASN evaluation:
La commissione, visti i giudizi individuali dei singoli commissari, esprime per il candidato ANDREA COMASTRI (FIS/05), la seguente valutazione collegiale sui tre gruppi di criteri adottati
G1 - ECCELLENTE
G2 - OTTIMO
G3 - ECCELLENTE
Avendo il candidato superato tre delle tre mediane dei parametri bibliometrici definiti dall'ANVUR e tenuto conto dei criteri stabiliti nella riunione del 13 marzo 2013, la commissione all'unanimita` delibera di **attribuire l'abilitazione scientifica nazionale alle funzioni di professore di I fascia.**

Teaching activities:

2014-date: Tutor of a INAF funded Ph.D. on NuSTAR hard X-ray surveys
2014: Kingsley Visiting Professor at Caltech, CA (USA)
2013: Lectures on high energy astrophysics at Chalmers University Onsala Observatory (Sweden)
2011-date: Member of "Collegio dei Docenti" of the Bologna University PhD School in Astronomy
2005- 2011: Professor of High Energy Astrophysics, Physics Dept., Ferrara University, Italy
2006: Director of the AGN course at the National School for PhD students
2000-2002: Contract Professor of Space Physics at the Astronomy Dept., Bologna University, Italy
1996– date Advisor of many (> 20) Master Thesis at the Astronomy Dept., Bologna University, Italy
1998– date Advisor of numerous (> 10) Ph.D. Thesis at the Astronomy Dept., Bologna University, Italy

Trained Students

For each of them the current position is indicated (**bold face** characters refer to permanent staff members or faculty):
Gianfranco Brunetti First Researcher INAF-IRA Bologna, Italy*;* **Tristano Di Girolamo***:* Researcher Napoli University, Italy; **Cristian Vignali** : Associate Professor Bologna University, Italy ; **Roberto Gilli** : Researcher INAF- OA Bologna, Italy; **Elisa Costantini**: Staff SRON – Utrecht, The Netherlands; **Marcella Brusa**: Researcher Bologna University, Italy; *Piero Ranalli*: Post Doc Lund Observatory, Sweden; **Francesca Civano**: Staff Scientists Chandra X-ray Center, Cambridge USA; *Elisabeta Lusso*: Post Doc Durham University, UK ; *Giorgio Lanzuisi* Post Doc INAF-OABO; **Nico Cappelluti** Faculty University of Miami, USA; *Alberto Masini* PhD Student INAF-OABO & DIFA UNIBO, move to Dartmouth University, USA

International Committees

2015-date Member of the Athena WFI Consortium Board and Scientific Council
2014-date Member of the ATHENA WFI Science Team
2013-2014: Chair of the ESO Observing Programmes Committee (OPC) Cosmology Panel
2006-2008-2013: Member of the INAF panel for national research funding competition
2012-2013: Member of the ESO Observing Programmes Committee (OPC) Cosmology Panel
2011-2012: Chairman of the XMM Observing Time Allocation Committee (OTAC) Survey Panel

2011-2012: Panel member of the Suzaku Time Allocation Committee
2010-date: Member of the NASA/NuStar Science Team
2013-date: Chair of the ATHENA Science Working Group on X-ray Surveys and high-z AGN
2011-date: Member of the ATHENA+ Science Definition Team (SDT)
2008-2011: Member of the International X-ray Observatory (IXO) Science Definition Team (SDT)
1998-2008: Member of the XEUS Astrophysics Working Group
2009-2013: Member of the European Virtual Observatory (Euro-VO) Science Advisory Committee
2006-date: Chairman of the COSMOS AGN working Group and member of the Steering Committee
2006: Panel member of the Chandra TAC AGN panel for AO8
2004-2005: Chairman of the XMM OTAC AGN panel for AO4 and AO5
1999: Panel member of the XMM OTAC panel 5 (AGN, Galaxies QSO & BL Lacs) for AO1
2002-2004: Member of the XMM User Group
1997-date: Scientific Organizing committee member for several international and national conferences and workshops. Chair of the SOC of the X-ray Astronomy 2009 Conference held in Bologna. Chair of the IAU focus meeting #6 "X-ray Surveys of the Hot and Energetic Cosmos" at the IAU general Assembly 2015 in Honolulu.
1995-date: Referee for international journals : Astronomy & Astrophysics, Astrophysical Journal, Monthly Notices of the Royal Astronomical Society. Referee for the FP7 ERC Advanced grants; H2020 Starting Grants. Referee for MIUR Programs FIRB and SIR.
2006-2008: Chairman of the INAF Advisory Committee "Macroarea 1": Galaxies & Cosmology

Awards

Premio "Maria Teresa Messori Roncaglia ed Eugenio Mari" conferito dall' Accademia Nazionale dei Lincei e destinato per il 2014 a uno "Scienziato"

Funding ID record & Research Management

PI of a large number of successful funding projects. The most relevant includes :
i) Research Grants from Italian Research Minister (PRIN -2000-2003-2004-2006 PRIN INAF 2011-2014) for a total funding of approximately 300 K-Euro. Research Grant for the Minister of Foreign Affairs for a bilateral Italy-Greece collaboration (~50 K-Euro for the period 2000-2002).
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. The most recent ASI contract obtained is for the analysis and scientific exploitation of NuSTAR data (50 KEuro),
iii) European Community IEF Marie Curie action to host Prof. Georgantopoulos for 2 years (~200 K-Euro).
iv) European Community SPACE Cooperation Grant for the Astrodeep project (Unveiling the power of the deepest images of the Universe). The project includes four Research centers in Europe (Italy, UK and France) and was recently funded for approximately 2 MEuro (750 K-euro to the Italian team led by A. Fontana). I'm responsible for the exploitation of the ultra deep X-ray data and a Post Doc was employed.
Overall, I was responsible for the management of more than 800 K-Euro in the last 10 years. The fund raising record allowed to keep the Bologna X–ray group extremely active and at the forefront of modern research in high–energy astrophysics, to advertise competitive Post Doc positions and attract senior visiting scientists, and to be part of major international collaborations (i.e. COSMOS & GOODS).
Over the period 2006 to 2009, I have served as Chairman of the INAF National scientific advisory board Macroarea 1: "Galaxies and Cosmology". The board main duty was to conceive and elaborate a strategic view for the scientific development of INAF research in the broad field of Galaxies and Cosmology and to assign research funding on a competitive basis.

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)
- Nick Scoville (Caltech USA, PI COSMOS Survey)

- Dave Sanders (Institute for Astronomy Hawaii USA, PI S–COSMOS)
- Martin Elvis (CfA USA, PI Chandra–COSMOS)
- Guenther Hasinger (Institute for Astronomy Hawaii USA, Director and PI XMM–COSMOS)
- Kirpal Nandra (MPE Garching, Director and Athena Science Study Team coordinator)
- Xavier Barcons (IFCA Santander Spain, Chairmain of the ATHENA Science Team)
- Ioannis Georgantopoulos (Athens Observatory Greece, EU–IEF fellow)
- W. Niel Brandt (Penn State University USA, PI Chandra–CDFS)
- Fiona Harrison (Caltech USA, PI of the NuSTAR project)
- Andrea Merloni ((MPE Garching, eROSITA project manager).
- Marguerite Pierre (CEA Saclay, PI of the XMM-XXL survey)
- C. Megan Urry (Yale, USA, PI of the SDSS-Stripe 82, Chandra&XMM survey)

Successful Observing Proposals

Large observational experience with essentially all the X—ray observatories in the last two decades: ROSAT, ASCA, BeppoSAX, Chandra, XMM, Suzaku, NuSTAR. Moreover I was able to obtain as a PI observing time at various ground based telescopes (i.e. TNG, ESO 3.6 m & VLT) for optical near—infrared imaging and spectroscopy 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).

Research Activity & Science Highlights

Most of the research activity is in the field of extragalactic X–ray astronomy and deals with the multi-wavelength characterization of the X–ray sources discovered in both deep and large area X-ray surveys, the study of AGN physics and evolution and the models for the X–ray background.
A significant fraction of the scientific production, especially in the first part of my career, is devoted to the study of AGN high energy properties through spectral analysis of X–ray observations obtained with EXOSAT, ROSAT, ASCA, BeppoSAX and more recently with Chandra, XMM and Suzaku. Results were published for a wide range of X–ray sources including Quasars and Seyfert galaxies, blazars and radio galaxies, narrow line Seyfert 1 and many flavours of obscured AGN. The scientific investigation was never limited to the data analysis, but also to the theoretical interpretation and modelling. For instance I have significantly contributed to the papers describing the so called "Blazar sequence" (with G. Fossati and G. Ghisellini) and to inverse Compton emission models for the X–ray emission of bright FRII radio galaxies (with G. Brunetti and G. Setti).
A milestone in my scientific career is represented by the paper: "The contribution of AGN to the X-ray background", where the **synthesis of the XRB spectrum** adopting the first self–consistent description of un–obscured and obscured AGN evolution is discussed in detail. Since its publication (Comastri et al. 1995, > 500 citations), countless papers on the subject appeared in the literature. While the most recent findings are somewhat different from the original results, the model "philosophy" is not changed. An updated version of the original model was published in 2007 in collaboration with R. Gilli and G. Hasinger and is, by now, a new, standard reference in this field with almost 500 citations as well.
Since then, most of the scientific activity was focused on the study of the physics and evolution of the sources responsible for the X–ray background. I have extensively worked on the exploitation of the BeppoSAX High Energy Large Area Survey (HELLAS). The X–ray observations, complemented by multi-wavelength data, allowed the Italian team, co–lead by F. Fiore and myself, to obtain the first estimates of the very hard (5–10 keV) counts and assess the contribution of obscured AGN to the hard XRB. The experience matured in the collaboration was successfully continued with the HELLAS2XMM survey. I have significantly contributed to all the papers published by the team. The HELLAS and HELLAS2XMM surveys could be considered the precursor of modern large area surveys such as COSMOS and AEGIS. As a consequence, I was invited at the early stage of the project (2003), to be part of the COSMOS survey science team. I was, and I am still in charge of the coordination of the AGN Working Group in COSMOS. In particular I have actively contributed to the preparation of the large XMM and Chandra proposals which eventually led to the approval of these ambitious and highly successful programs. I was deeply involved in countless scientific papers on AGN multiwavelength properties and trained many students and young post-docs (M. Brusa, F. Civano and E. Lusso).

I'm a member of the Chandra Deep Field South Science team led by Niel Brandt and together with R. Gilli and C. Vignali, I have contributed to many of the scientific papers based on the exploitation of the ultra-deep (4 Ms) Chandra survey, recently granted of additional 3 Ms reaching by the end of 2014 almost 7 Ms of exposure time. I was awarded of the first Very Large Program with XMM devoted to a deep survey (~ 3 Ms) of the CDFS field. After a few years of hard work of the team assembled at the INAF and Bologna University including, over the last few years several experienced post docs (P. Ranalli, N. Cappelluti, E. Rovilos, G. Lanzuisi), two visiting senior scientists (K. Iwasawa & I. Georgantopoulos) and three staff members (C. Vignali, R. Gilli & M. Brusa), the first series of papers is published (Comastri et al. 2011; Iwasawa et al. 2012, Ranalli et al. 2013, Georgantopoulos et al 2013; Falocco et al. 2013) and many more are either published or in preparation.
I was appointed as a member of the NuSTAR Science Team in 2011 and since the mission launch (June 2012) I'm deeply involved in the exploitation of survey data and spectral characterization of heavily obscured AGN in the nearby Universe. More specifically I'm co-supervisor of a PhD student in Caltech (M. Balokovic) working on the analysis of the X-ray properties of a large sample of Seyfert galaxies in the local Universe for which good quality broad band spectra up to 80 keV were obtained by NuSTAR. I'm also in charge to coordinate the interpretation of the hard X—ray surveys data and their implications for the modelling of the X—ray background.

Since the beginning of my career as a staff member at the Bologna Observatory I have dedicated a significant fraction of my time in training undergraduate and graduate students. (an incomplete list can be found earlier in this CV). Over the years, and thank to the successful scientific programs approved at the various telescopes and financed by national and European Agencies, I was able to put together a competitive team in the field of the high energy astrophysics and observational cosmology. The team grew up and also started to broaden the scientific research along several lines and to engage additional students and post doctoral scholars.
Currently the team counts on 3 senior scientists, formerly students of mine, leading important research fields. Cristian Vignali is deeply involved in the analysis and interpretation of X—ray surveys data and in particular of obscured AGN, Marcella Brusa is leading the optical and near infrared follow up and the study of feedback mechanisms. Roberto Gilli is actively working on the search for high redshift (z > 6) QSO using a truly multi-wavelength approach. Several Post Docs and PhD students are currently working and being trained in the group.

A brief summary of what I consider the highlights of my scientific production, in the last decade or so, are listed in the following.
We were the first to propose, back in 2003, to use hard X–ray luminosity as a star–formation indicator, in a paper written in collaboration with P. Ranalli and G. Setti. In 2004, I was invited to write a review paper for a monographic book on Super–Massive Black Holes. The review was mainly about heavily obscured (Compton–thick) AGN and how their properties can be constrained by X–ray background synthesis models. The paper is since then a standard reference in this field and has stimulated many (> 100) papers on the subject and intensive research activity in the field. The existence of relativistic broadening of the iron line in a z~1 AGN in the CDFN is discussed in paper in collaboration with M. Brusa and F. Civano. This paper represents the first attempt to probe the effects of General Relativity, in its strong field limit, beyond the local Universe. It also stimulated the search for and the study of relativistic lines using stacking techniques in deep fields. In 2005, by studying the link between luminous, obscured AGN and Extremely Red Objects, we (with M. Brusa) were able to provide first observational evidences of the effect of powerful AGN in shutting down star–formation. In 2007, the paper on the state of the art XRB model was published with R. Gilli and G. Hasinger and since then has become a standard reference in the field. In the period 2008-2012 the priority of my research activity was on the management and scientific exploitation of the XMM ultra deep survey in the CDFS. The first results on the search of Compton thick AGN (Comastri et al. 2011) and the study of obscuration properties at high (z > 1.7) redshifts (Iwasawa et al. 2012), clearly demonstrate the feasibility of the program and the capabilities of deep XMM exposures in characterizing heavy obscuration at cosmological distances. An interesting serendipitous discovery is the first detection of a blueshifted absorption feature in a z=1.6 obscured AGN witnessing feedback in action (Vignali et al. 2015).
The determination of the X—ray luminosity function at high (> 3) redshift was addressed in a series of papers (Brusa et al. 2009; Civano et al. 2011 and more recently Vito et al. 2013,2014) which set the state of the art of the AGN evolution in the early Universe. The demography and evolution of highly obscured and Compton thick AGN is now quantitatively addressed thanks first high quality spectra in the 3-80 keV obtained by NuSTAR at both low (Balokovic, Comastri et al. 2014; Puccetti, Comastri et al. 2014) and

higher (Zappacosta, Comastri et al. 2015) redshifts.

Since the late 90' I was involved in the definition of the scientific case for a large X—ray telescope. The project underwent many revisions and the name changed over the years (XEUS, IXO and now ATHENA). In 2013 the ATHENA mission was approved by ESA as a large mission for the L2 slot. I'm co-chairing the WG of the AGN surveys and the scientific case for a comprehensive deep X—ray surveys to uncover primeval black holes at z ~ 6 and beyond. The strong scientific case was built upon the scientific heritage of 15+ years of hard work on previous mission concepts.
In 2014 I was appointed full member of the WFI science Team and coordinator of the Italian Scientific and Technological participation to the WFI instrument.

Publications

About 320 papers in peer review refereed journals (more than 18,000 citations and H—index of 68 from ADS; about 24,000 and H—index of 75 from Google Scholar). Approximately 30 invited talks and review in the last 10 years. Many seminars and colloquia at Italian and foreign Institutions. In the following a selected list of the most relevant (in terms of citation and impact) publications along with number of citations (from ADS)

Selected Publications

Reynes A.E. **& Comastri A.**, 2016 *Observational Signatures of High-Redshift Quasars and Local Relics of Black Hole Seeds PASA 33, 54* ***(9 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 **(22 cit.)**
Puccetti, Simonetta; **Comastri, Andrea;** Fiore, Fabrizio et al. 2014 *The Variable Hard X-Ray Emission of NGC 4945 as Observed by NuSTAR* ApJ 793, 26 **(35 cit.)**
P. Ranalli; **A. Comastri**, C. Vignali, et al. 2013 *The XMM Deep Survey in the CDFS III. Point Source Catalogue and Number Counts in the hard X-rays.* A&A, 555A, 42 **(31 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 **(106 cit)**
A. Comastri, et al 2011: *The XMM Deep Survey in the CDFS I. First results on heavily obscured AGN* A&A, 526, L9 **(92 cit.)**
M. Brusa, F. Civano, **A. Comastri** et al. *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 **(207 cit)**
A. Comastri, et al. 2010*: Suzaku Observations of hard X-ray selected Sey 2 galaxies,* ApJ 717, 787 (**37 cit.**)
R. Gilli, **A. Comastri,** G. Hasinger 2007: *The synthesis of the cosmic X-ray background in the Chandra and XMM-Newton era,* A&A 463, 79 **(553 cit.**)
M. Brusa**, A. Comastri**, et al. 2005*: XMM observations of Extremely Red Objects and the link with luminous X–ray obscured Quasars,* A&A 432, 69 **(76 cit.)**
F. La Franca, F. Fiore, **A. Comastri,** et al. 2005: *The HELLAS2XMM Survey. VII. The Hard X-Ray Luminosity Function of AGNs up to z = 4: More Absorbed AGNs at Low Luminosities and High Redshifts* ApJ 635, 864 **(337 cit.)**
A. Comastri 2004*: Compton-thick AGN: the dark side of the X-ray background,* 2004 Kluwer Academic Publishers, 308, p. 245-272 **(113 cit.)**
P. Ranalli, **A. Comastri**, G. Setti 2003*: The 2-10 keV luminosity as a star formation rate indicator,* A&A 399, 39 **(468 cit.)**
A. Comastri, et al. 2002*: The HELLAS2XMM survey: II. Multiwavelength observations of P3 an X-ray bright optically inactive galaxy* ApJ 571, 771 **(133 cit.)**
A. Comastri, et al. 2001*: The BeppoSAX High Energy Large Area Survey HELLAS, III: Testing synthesis models for the X-ray background*, MNRAS 327, 781 **(81 cit.)**
G. Fossati, L. Maraschi, A. Celotti, **A. Comastri**, G. Ghisellini 1998: *A unifying view of the spectral energy distributions of blazars* MNRAS 299, 433 **(822 cit.)**
K. Iwasawa, **A. Comastri** 1998: ASCA spectroscopy of the luminous infrared galaxy NGC 6240: X-ray emission from a starburst and a buried active nucleus MNRAS 297, 1219 **(85 cit.)**
A. Comastri, G. Fossati, G. Ghisellini, S. Molendi 1997: On the Soft X-Ray Spectra of gamma-loud

Blazars ApJ 480, 534 **(101 cit.)**
G. Brunetti, G. Setti, **A. Comastri** 1997: *Inverse Compton X-rays from strong FRII radio-galaxies.* A&A 325, 898 **(115 cit.)**
A. Comastri, G.Setti, G. Zamorani, G. Hasinger 1995: *The contribution of AGN to the X-ray background***,** A&A 296, 1 **(537 cit.)**
A. Comastri, G. Setti, G. Zamorani, M. Elvis, B.J. Wilkes, J.C. McDowell, P. Giommi 1992: *EXOSAT X-ray spectra of quasars* ApJ 384, 62 **(92 cit.)**

Selected Invited Reviews

A. Comastri "*AGN physics and evolution in the next decade",* Chandra science for the next decade, August 2016, Cambridge, MA, USA
A. Comastri *Heavily Obscured AGN***,** Demographics and environment of AGN from multi-wavelength surveys, September 2015, Chania, Greece
A. Comastri *The high-z obscured AGN: X-ray emission*, EWASS Symposium "Understanding the growth of the first supermassive black holes" Tenerife, Spain, June 2015
A. Comastri *The evolution of obscured accretion probed by deep and hard X-ray surveys*, New York University in Abu Dhabi Physics Department Colloquium, May 2015, Abu Dhabi, Emirati Arabi Uniti
A. Comastri *The demography of obscured AGN*. "Unveiling the AGN-Galaxy Evolution connection", March 2015, Puerto Varas, Chile
A. Comastri *Concluding Remarks*, 11th Italian meeting on Active Galactic Nuclei, entitled "Where Black Holes and Galaxies Meet". September 2014, Trieste, Italy
A. Comastri *The evolution of obscured accretion probed by deep and hard X-ray surveys,* Yale Astronomy Department Colloquium, January 30, 2014 New Haven CT, USA
A. Comastri *The evolution of obscured accretion probed by deep and hard X-ray surveys*, Caltech Astronomy Colloquium, January 8, 2014, Pasadena CA, USA
A. Comastri *What is the number and nature of distant (moderate/high redshift) Compton thick AGN?,* "Explosive Transients: Lighthouses of the Universe" September 2013, Santorini Greece
A. Comastri, *The light up and evolution of early massive Black Holes: Athena Observations,* "The 39th COSPAR general assembly", July 2012, Mysore, India
A. Comastri, *The deep sky under the X–ray limelight: The XMM ultra–deep survey in the CDFS* , "The X-ray Universe 2011 XMM Conference", June 2011, Berlin, Germany
A. Comastri, *The census of AGN from X-ray and multiwavelength surveys: results and perspectives,* "High Energy View of Accreting Objects: AGN and X-ray Binaries", October 2010, Crete, Greece
A. Comastri, *AGN Unified Scheme and Evolution: a Suzaku view,* "The energetic Cosmos from Suzaku to ASTRO-H", July 2009, Otaru Japan
A. Comastri, *Surveys of Active Galactic Nuclei,* "The X-ray Universe 2008 XMM Conference", May 2008, Granada, Spain
A. Comastri, M. Brusa, *Extragalactic X-ray surveys: AGN physics and evolution,* "XMM-Newton the next decade", June 2007, Madrid, Spain (2008, AN 329, 122)
A. Comastri, *Obscured AGN and XRB models,* "Simbol-X: the hard X-ray Universe in focus", may 2007, Bologna, Italy
A. Comastri, *The demography and evolution of Compton-thick AGN,* "X-ray Surveys: evolution of accretion star formation and large scale structure", July 2007, Rhodos, Greece
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