

COMMISSION 28: GALAXIES

(GALAXIES)

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1. Introduction

Researches of galaxies have been experiencing a remarkable progress over the last several years. A review of scientific achievements in this triennium (July 1999 to June 2002) is given as the report of Division VIII. This report presents major conferences, review papers, catalogs, and useful URLs relevant to Commission 28. Entries are largely based upon inputs from Commission members and completeness was not intended.

2. Conferences

Dynamics of Galaxies: from the Early Universe to the Present, 15th IAP colloquium, 9-13 Jul., 1999, Proceedings: ASP Conf Series, Vol. 197. (ISBN: 1-58381-024-2)

Gravitational Lensing: Recent Progress and Future Goals, Jul., 1999, Boston, USA; Proceedings: ASP Conf. Ser., Vol. 237. (ISBN: 1-58381-074-9)

Toward a New Millennium in Galaxy Morphology, 13-18 Sep., 1999, Johannesburg, South Africa; Proceedings: eds. D. Block et al. (Kluwer) (ISBN: 0-7923-6185-7)

H₂ in Space, 28 Sep. - 1 Oct., 1999, Paris, France; Proceedings: eds. F. Combes and G. Pineau des Forêts (Cambridge Univ. Press)

Cosmic Evolution and Galaxy Formation: Structure, Interactions, and Feedback, 15-19 Nov., 1999, Puebla, Mexico; Proceedings: ASP Conf. Ser., Vol. 215. (ISBN: 1-58381-0046-3)

Birth and Evolution of the Universe, 16-19 Nov., 1999, Tokyo, Japan; Proceedings: (Universal Academy Press) (ISBN: 4-946443-57-6)

Mapping the Hidden Universe: The Universe behind the Milky Way. The Universe in HI, 23-29 Feb., 2000, Guanajuato, GTO, Mexico; Proceedings: ASP Conf. Ser., Vol. 218. (ISBN: 1-58381-050-1)

Gas and Galaxy Evolution, A Conference in Honor of the 20th Anniversary of the VLA, 21-24 May, 2000, Socorro, NM, USA; Proceedings: ASP Conf. Ser., Vol. 240. (ISBN: 1-58381-077-3)

The Evolution of Galaxies. I. Observational Clues, Euroconference, May 2000, Granada, Spain; Proceedings: Ap&SS, Vol. 277, Supplement.

JENAM 2000 *European Astronomy at the Turn of the Millennium*, 29 May - 3 Jun., 2000, Moscow, Russia; Proceedings: Astronomical and Astrophysical Transactions, Vol. 20.

JENAM 2000 *Astronomy in Ukraine 2000 and Beyond (impact of international cooperation)*, 5-8 Jun., 2000, Kiev, Ukraine; Proceedings: Kinematics and Physics of Celestial Bodies, Supplement No. 3. (There were several Symposia and Workshops in JENAM2000)

Galaxy Disks and Disk Galaxies, 12-16 Jun., 2000, Rome, Italy; Proceedings: ASP Conf. Ser., Vol. 230. (ISBN: 1-58381-063-3)

- Deep Millimeter Surveys: Implications for Galaxy Formation and Evolution*, 19-21 Jun., 2000, Amherst, MA, USA; Proceedings: eds. J.D. Lowenthal, & D.H. Hughes (World Scientific Publishers) (ISBN: 9810244657)
- High Energy Gamma-Ray Astronomy*, 26-30 Jun., 2000, Heidelberg, Germany; Proceedings: AIP Proceedings, Vol. 558. (ISBN: 1-56396-990-4)
- The Starburst-AGN Connection*, 26-30 Jun., 2000, Tonantzintla, Puebla, Mexico; Proceedings: eds. I. Aretxaga et al. (World Scientific)
- Nuclei in the Cosmos*, 27 Jun. - 1 Jul., 2000, Aarhus, Denmark; Proceedings: eds. J. Christensen-Dalsgaard & K. Langanke, Nuclear Physics A, Vol. 688.
- Constructing the Universe with Clusters of Galaxies*, IAP 2000 meeting, Jul., 2000, Paris, France; Proceedings: <http://www.iap.fr/Conferences/Colloque/coll2000/contributions/>
- New Cosmological Data and the Value of the Fundamental Parameters*, IAU Symp. 201, 7-11 Aug., 2000, Manchester, UK; Proceedings: eds. A. Lasenby et al., (ASP), in prep.
- The Extragalactic Infrared Background and Its Cosmological Implications*, IAU Symp. 204, 15-18 Aug., 2000, Manchester, UK; Proceedings: (ASP) (ISBN: 1-58381-062-5)
- Galaxies and Their Constituents at the Highest Angular Resolutions*, IAU Symp. 205, 15-18 Aug., 2000, Manchester, UK; Proceedings: (ASP) (ISBN: 1-58381-066-8)
- The New Era of Wide-Field Astronomy*, 21-24 Aug., 2000, Preston, UK; Proceedings: ASP Conf. Series, Vol. 232. (ISBN: 1-58381-065-X)
- Cosmic Evolution*, 13-17 Nov., 2000, Paris, France; Proceedings: eds. E. Vangioni-Flam et al. (World Scientific) (ISBN: 9810247869)
- The Promise of the Herschel Space Observatory*, 12-15 Dec., 2000, Toledo, Spain; Proceedings: eds. G.L. Pilbratt et al., ESA Proceedings SP-460.
- QSO Hosts and Their Environments*, 10-12 Jan., 2001, Granada, Spain; Proceedings: Eds. I. Marquez et al. (Kluwer) (ISBN: 0306466627)
- Dwarf Galaxies and Their Environment*, 23-27 Jan., 2001, Bad Honnef, Germany; Proceedings: eds. K.S. De Boer et al. (Shaker Verlag) (ISBN: 3826592646)
- Astrophysical Ages and Time Scales*, 5-9 Feb., 2001, Hilo, HI, USA; Proceedings: ASP Conf. Ser., Vol. 245. (ISBN: 1-58381-083-8)
- Extragalactic Star Clusters*, IAU Symp. 207, 12-16 Mar., 2001, Pucon, Chile; Proceedings: (ASP) (ISBN: 1-58381-115-X)
- High-Energy Astrophysics Symposium*, 4-6 Apr., 2001, Baltimore, Maryland, USA; Proceedings: AIP Conf. Proc. No. 587.
- The Central Kiloparsec of Starbursts and AGN: The La Palma Connection*, 7-11 May, 2001, La Palma, Spain; Proceedings: ASP Conf. Ser., Vol. 249. (ISBN: 1-58381-089-7)
- Chemical Enrichment of Intracluster and Intergalactic Medium*, 14-18 May, 2001, Vulcano, Eolie, Italy; Proceedings: ASP Conf. Ser., Vol. 253. (ISBN: 1-58381-093-5)
- Galaxies and the Dark Matter Problem*, 31 May - 2 Jun., 2001, IAS, Princeton, USA; (no proceedings, but see <http://www.physics.rutgers.edu/~cjoseph/keckworkshop.html>)
- SF2A-2002*, Semaine de l'Astrophysique Française, 28 May - 1 Jun., 2001, Lyon, France; Proceedings: eds. F. Combes et al. (EdP-Sciences), Conference Series.
- AGN Surveys*, IAU Colloq. 184, 18-22 Jun., 2001, Byurakan, Armenia; Proceedings: eds. R.F. Green et al., ASP Conf. Ser., in prep.
- The Dynamics, Structure and History of Galaxies*, A Workshop in Honour of Professor Ken Freeman, 30 Jul. - 2 Aug., 2001, Dunk Island, Australia; Proceedings: ASP Conf. Ser. Vol. 273. (ISBN: 1-58381-114-1)

JENAM 2001 *Five Days of Creation: Astronomy with Large Telescopes from Ground and Space*, 10-14 Sep., 2001, Munich, Germany (several Mini-symposia and Joint Discussions); Proceedings: see <http://www.mpa-garching.mpg.de/english/conferences/jenam01/>

The Evolution of Galaxies. II. Basic Building Blocks, Euroconference, Oct., 2001, La Réunion, France; Proceedings: eds. M. Sauvage et al., Ap&SS, Vol. 281, Nos. 1-2.

The Mass of Galaxies at Low and High Redshift, ESO workshop, 24-26 Oct., 2001, Venice, Italy; Proceedings: eds. R. Bender & A. Renzini (Springer-Verlag), "ESO Astrophysics Symposia" series.

New Trends in Theoretical and Observational Cosmology, 13-16 Nov., 2001, Tokyo, Japan; Proceedings: (Universal Academy Press) (ISBN: 4-946443-73-8)

The Shapes of Galaxies and their Dark Halos, 28-30 May, 2001, New Haven, CT, USA.; Proceedings: P. Natarajan (World Scientific) (ISBN: 981-02-4848-2)

Actual Problems of Extragalactic Astronomy, Annual Meetings No XVI, XVII and XVIII in 1999, 2000 and 2001, Pushino, near Moscow, Russia; no proceedings.

Mind Over Matter, A Celebratory Symposium for Vera Rubin, 10-11 Jan., 2002, Carnegie Institution of Washington, Washington D.C., USA; no proceedings

Science with GTC, Feb., 2002, Granada, Spain; Proceedings: Rev. Mex. AA, in press.

The Cold Universe, School of SAAS-FEE, Mar. 2002, Saas Fee, Switzerland; Proceedings: will be published (Springer)

New Frontiers of Astronomy, a meeting celebrating Fred Hoyle's science, 16 Apr., 2002, St. John's College, Cambridge, England; Proceedings: will be published by the Cambridge University Press.

Fred Hoyle's Universe, 24-26 Jun., 2002, Cardiff, U.K.; Proceedings: contact Dr. Chandra Wickramasinghe, at University of Cardiff, U.K.

Towards an International Virtual Observatory - Scientific Motivation, Roadmap for Development and Current Status, 14-20 Jun., 2002, Garching, Germany; Proceedings: will be published in the Springer-Verlag "ESO Astrophysics Symposia" series.

3. Review Papers and Books

Mellier, Y. 1999, *Probing the Universe with Weak Lensing*, ARA&A, **37**, 127.

Hamann, F. & Ferland, G. 1999, *Elemental Abundances in Quasistellar Objects: Star Formation and Galactic Nuclear Evolution at High Redshifts*, ARA&A, **37**, 487.

O'Connell, R.W. 1999, *Far-Ultraviolet Radiation from Elliptical Galaxies*, ARA&A, **37**, 603.

Mulchaey, J.S. 2000, *X-Ray Properties of Groups of Galaxies*, ARA&A, **38**, 289.

van Paradijs, J. et al. 2000, *Gamma-Ray Burst Afterglows*, ARA&A, **38**, 379.

Sulentic, J.W. et al. 2000, *Phenomenology of Broad Emission Lines in Active Galactic Nuclei*, ARA&A, **38**, 521.

Ferguson, H.C. et al. 2000, *The Hubble Deep Fields*, ARA&A, **38**, 667.

Trimble, V. & Aschwanden, M.J. 2000, *Astrophysics in 1999*, PASP, **112**, 434.

Véron-Cetty M.-P. & Véron P. 2000, *The Emission Line Spectrum of Active Galactic Nuclei and the Unifying Scheme*, The Astr. & Ap. Rev., **10**, 81.

Loeb, A., & Barkana, R. 2001, *The Reionization of the Universe by the First Stars and Quasars*, ARA&A, **39**, 19.

Leibundgut, B. 2001, *Cosmological Implications from Observations of Type IA Supernovae*, ARA&A, **39**, 67.

Sofue, Y. and Rubin, V. 2001, *Rotation Curves of Spiral Galaxies*, ARA&A, **39**, 137.

- Narlikar, J.V. & Padmanabhan, T. 2001, *Standard Cosmology and Alternatives: A Critical Appraisal*, ARA&A, **39**, 211.
- Hauser, M.G. & Dwek, E. 2001, *The Cosmic Infrared Background: Measurements and Implications*, ARA&A, **39**, 249.
- Trimble, V. & Aschwanden, M.J. 2001, *Astrophysics in 2000*, PASP, **113**, 1025.
- Trimble, V. & Aschwanden, M.J. 2002, *Astrophysics in 2001*, PASP, **114**, 475.
- Contopoulos, G. 2002, *Order and Chaos in Dynamical Astronomy*, Springer Verlag, N. York.

4. Catalogues

- Cabanela, J. E. 1999, *Galaxy Properties from a Diameter-Limited Catalog*, thesis, University of Minnesota
- Karachentsev, I.D. et al. 1999, *Revised Flat Galaxy Catalogue*
- Saunders, W. et al. 2000, *PSCz Catalogue*, MNRAS, **317**, 55.
- Roman, A.T. et al. 2000, *A Visual Search for Galaxies in a Milky Way Region around the North Supergalactic Pole. (Vol. 5)*, ApJS, **127**, 27
- Croom, S.M. et al. 2001, *The 2dF QSO Redshift Survey. V. The 10k Catalogue*, MNRAS, **322**, L29.
- Véron-Cetty, M.-P. & Véron P. 2001, *A Catalogue of Quasars and Active Galactic Nuclei. 10th edition*, A&A, **374**, 92.
- Chen, H. -W. et al. 2001-2002, *Las Campanas Infrared Survey*, (ApJ, **570**, 54, 2002, etc.)

5. Useful URLs

- IAU home page: <http://www.iau.org/>;
- Div. VIII home page: <http://www.star.bris.ac.uk/iau/>;
- Com. 28 home page: <http://www.star.bris.ac.uk/iau/comms/home28.html>
- NASA/IPAC Extragalactic Database (NED): <http://nedwww.ipac.caltech.edu/>
- Sloan Digital Sky Survey (SDSS): <http://www.sdss.org/>; <http://skyserver.fnal.gov/en/>
- 2dF Galaxy Redshift Survey (2dFGRS): <http://www.mso.anu.edu.au/2dFGRS/>
- Two Micron All Sky Survey (2MASS): <http://pegasus.phast.umass.edu/>
- NRAO VLA Sky Survey (NVSS): <http://www.cv.nrao.edu/nvss/>
- VLA Faint Images of the Radio Sky at Twenty-Centimeters (FIRST) Survey: <http://sundog.stsci.edu/>
- HI Parkes All-Sky Survey (HIPASS): <http://www.atnf.csiro.au/research/multibeam/release/>
- Astrophysics Data Facility: <http://adf.gsfc.nasa.gov/adf/adf.html>
- Digitized Sky Survey (DSS): [http://archive.stsci.edu/cgi-bin/dss\(us\)form;](http://archive.stsci.edu/cgi-bin/dss(us)form;)
[http://dss.nao.ac.jp/wide\(us\)field/](http://dss.nao.ac.jp/wide(us)field/)
- super-COSMOS sky surveys: <http://www-wfau.roe.ac.uk/sss/index.html>
- Skyview Virtual Observatory: <http://skys.gsfc.nasa.gov/>
- An XMM-Newton International Survey: <http://www.ifca.unican.es/~xray/AXIS>
- CDS: Centre de Données astron. de Strasbourg: <http://cdsweb.u-strasbg.fr/CDS.html>

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