

**ING La Palma Technical Note no. 66**

**ING bibliography 1988**

**K.P. Tritton (RGO)**

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## **ING bibliography 1988**

This bibliography is compiled of citable publications appearing in 1988 that contain data generated by the Isaac Newton Group of Telescopes at the Observatorio del Roque de los Muchachos. It is a continuation of the bibliography for 1984-87 which appeared as Technical Note No 62. As before, the criterion for inclusion is that some observational result is reported from one of the ING telescopes, but papers making use of ING data published elsewhere are excluded (unless they also report new observations).

It is hoped that the list is reasonably complete, but I would be grateful to hear of any errors or omissions. I would be particularly grateful to receive relevant reprints for future compilations.

W L Martin has made an analysis of the publications from 1984-88 to show the use of telescopes and instrumentation, publication delay times and authors' institutions. This will appear as Technical Note No 67.

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- C Abia, R Rebolo, J E Beckman & L Crivellari (1988). "Abundances of light metals and Ni in a sample of disc stars". *Astron Astrophys*, 206, 100
- D J Adams, E E Beeklin, R F Jameson, A J Longmore, Aa Sandqvist & E Valentijn (1988). "Lunar occultation of the Galactic Center at 2.2 Microns". *Astrophys J* 327, L65
- J R Allington-Smith, H Spinrad, S Djorgovski & J Liebert (1988). "Further redshifts of 1-Jy radio sources", *MNRAS* 234, 1091
- M J Ar, valo, C Lazaro & J J Fuensalida (1988). "Photometric Study of ER Vul.", *Astron J* 96, 1061
- M J Ar, valo, J J Fuensalida & C Lazaro (1988). "Visible and Infrared Photometry of ER Vul". Proc: Activity in Cool Star Envelopes, (Kluwer) eds. O. Havnes et al, p107
- A N Argue & M J Irwin (1988), "Double star CCD astrometry and photometry". *Irish. A J* 18, 225
- E W Barnett & C D McKeith (1988). "Fine structure splitting of the  $2s^2 2p^3$   $^2P$  and  $^2D$  levels of OII from CCD/echelle observations of the planetary nebula IC 418", *MNRAS* 234, 241
- E W Barnett & C D McKeith (1988). "Carbon abundances in B-type stars from an LTE analysis of CCD/echelle observations of the CII  $\lambda\lambda$  6578, 6583 • lines", *MNRAS* 234, 325
- Juan A Belmonte, Pere L Pall, , Teodoro Roca Cort, s & Fritz Shoch (1988). "Search for rapid oscillations in the northern Ap stars HD62140, HD81009 & HD22374". Proc symposium: Seismology of the Sun and Sun-like stars, Tenerife (ESA SP-286)
- C R Benn, G Grueff, M Vigotti & J V Wall (1988). "A deep radio and optical survey near the North Galactic Pole - IV: VLA observations and optical identifications of 5C12 sources". *MNRAS* 230, 1
- M F Bode & J Meaburn (1988). "CH Cygni". *IAU Circ* 4659
- Klaas S de Boer (1988). "Observations of UV-bright stars in Galactic Globular Clusters". IAU Colloquium No 95: The Second Conference on Faint Blue Stars, ed Davis Philip et al, p95
- C Boisson & D P, quignot (1988). "Photoionization versus shocks in the filaments of NGC 1275". Proc: Cooling Flows in Clusters and Galaxies, (Kluwer) ed Fabian p155
- R Bottema (1988). "The stellar kinematics of the spiral galaxies NGC 3198 and NGC 3938". *Astron Astrophys* 197, 105
- R G Bower, R S Ellis & G F Efstathiou (1988). "Dynamical friction in the rich cluster A2029", Cooling Flows in Clusters and Galaxies, (Kluwer) ed A C Fabian p115
- R G Bower, R S Ellis & G Efstathiou (1988). "A study of satellite galaxies in the rich cluster A2029", *MNRAS* 234, 725
- P J Callanan (1988). "X-Ray Binaries in Globular Clusters". *Irish A J* 18, 152
- A Cassatella, R Gonzalez-Riestra, T Fernandez-Castro, J Fuensalida & A Gimenez (1988). "Ultraviolet to near infrared observations of BF Cyg". The Symbiotic Phenomenon, (Kluwer) ed J Mikolajewska et al p301

J Cepa, M Prieto, J Beckman & C Muñoz-Tuñón (1988), "Near-infrared I mapping of spiral galaxies III. NGC2403: spiral structure in the old disc population". *Astron Astrophys* 193, 15

P Charles, B Hassall, G Machin., A Smale, J Allington-Smith & R Corbet (1988), "ASM 2000+25", *IAU Circ* 4609

P A Charles & M Kidger (1988), "ASM 2000+25", *IAU Circ* No 4670

C A Clayton (1988). "Echelle observations of gas motions in NGC 604", *MNRAS* 231, 191

M J Coe., A Longmore, B J Payne & C G Hanson (1988). "The optical/IR counterpart to the newly-discovered X-ray source EXO 2030+375", *MNRAS*, 232, 865

E S Conlon, P J F Brown, P L Dufton & F P Keenan (1988). "An abundance and kinematical analysis of four early-type high latitude stars". *Astron Astrophys* 200, 168

C S Crawford, A C Fabian & R M Johnstone (1988). "Cooling flows around radio-loud QSO". *MNRAS*, 235, 183

J I Davies, S Phillipps & M J Disney (1988). "The lowest surface brightness disc galaxy known", *MNRAS* 231, 69P

J S B Dick & D H P Joners (1988). "A new data acquisition system for high-speed astronomical photometry". *J Phys E* 21, 853

A C Fabian, C S Crawford, R M Johnstone, J R Allington-Smith & P C Hewett (1988). "WHT spectroscopy of emission-line gas around two separate quasars at  $z = 0.87$ ". *MNRAS*, 235, 13p

M T Friend, J S Martin, Robert Connon Smith & D H P Jones (1988). "The 8190 • sodium doublet in cataclysmic variables - I. The Quest", *MNRAS* 233, 451

J J Fuensalida, F Rosa & F J Fuentes (1988). "Applications of image sharpening techniques I. Nebular structure in H-alpha of AG Peg". *Astron Astrophys* 191, L13

R J Garcia Lopez, R Rebolo & J E Beckman (1988). "Lithium abundances and metallicities in stars near the main-sequence turnoff and a giant in M67". *PASP* 100, 1489

R Gonzalez-Riestra, M Rego & J Zamorano (1988), "Star-forming knots in Mk 178", *Astron Astrophys* 202, 27

L Hansen, H U Norgaard.Nielsen & H E Jorgensen (1988). "Possible supernovae", *IAU Circ* 4641

Michael Hoey (1988). "The morphology of planetary nebulae - The Eskimo Nebula". *Irish A J* 18, 227

S B Howell, K O Mason, G A Reichert, A Warnock & T J Kreidl (1988). "US943: a l9th mag eclipsing cataclysmic variable with a period of 2<sup>h</sup>3.8<sup>m</sup>", *MNRAS* 233, 79

J L Innis et al (1988), "High precision velocity observations of Arcturus using the 7699• line of potassium". Proc symposium: Seismology of the Sun and Sun-like stars, Tenerife (ESA SP-286) p569

Roderick Johnstone (1988), "Cooling flow filaments and the emission-line gas in NGC1275". Proc: Cooling Flows in Clusters and Galaxies, (Kluwer) ed Fabian p159

R M Johnstone & A C Fabian (1988). "Extended emission-line gas in NGC 1275 and the central galaxy in A1795: evidence for a distributed rather than a central source of ionization". MNRAS 233, 581

W C Keel (1988). "Optical continuum shapes of extragalactic radio jets". Proc: Active Galactic Nuclei, (Springer) eds Miller and Wiita p364

William C Keel (1988). "The optical continua of extragalactic radio jets". Astrophys J 329, 532

W C Keel, M H K de Grijp & G K Miley (1988), "New active galactic nuclei from the IRAS deep fields", Astron Astrophys 203, 250

M. Kidger (1988). "Supernova 1988A in M58". IAU Circ 4541

M. Kidger (1988). "Supernova 1988A in M58". IAU Circ 4613

Mark R Kidger (1988). "CCD monitoring of quasars and BL Lacertae objects", PASP 100, 1248

M Kidger & P Allan (1988), "3C446 and 3C279", IAU Circ 4650

S G Kleinmann et al (1988), "The properties and environment of the giant, infrared-luminous galaxy IRAS 09104+4109". Astrophys J 328, 161

E Laurikainen & M Moles (1988), "Two interacting Seyfert 2 Galaxies: VV 343 and III Zw 55". Astron J 96, 470

A Lawrence et al (1988). "Extreme FeII emission from an IRAS quasar", MNRAS 235, 261

K J Leech, A Lawrence, M Rowan-Robinson, D Walker & M V Penston (1988), "Studies of IRAS sources at high galactic latitudes IV: New redshifts and the spectroscopic properties of IRAS galaxies", MNRAS 231, 977

D J Lennon, P J F Brown & P L Dufton (1988), "The helium abundance in the double cluster h and  $\chi$  Persei", Astron Astrophys 195, 208

A Manchado, A Mampaso & S R Pottasch (1988), "Shell formation and mass loss in the planetary nebula A78", Mass outflows from Stars and Galactic Nuclei (Kluwer), eds Bianchi and Gilmozzi p257

A Manchado, S R Pottasch & A Mampaso (1988), "Abundance variations in the planetary nebula A78", Astron Astrophys 191, 128

T R Marsh (1988), "A spectroscopic study of the deeply eclipsing dwarf nova IP Peg", MNRAS 231, 1117

A P Marston & J Meaburn (1988), "The Wolf-Rayet nebula NGC 6888 as a pressure-driven bubble", MNRAS 235, 391

J Meaburn (1988), "An extended high-speed flow from a compact, ionised knot in the Orion Nebula (M42)", MNRAS 233, 791

J Meaburn, C A Clayton & M J Whiteland (1988), "The dynamics of a complex of interlocking giant shells in the Local Group dwarf galaxy IC 1613", MNRAS 235, 479

R H M, ndez, A Manchado & A Herrero (1988), "A stronger HeII 4686 in the spectrum of the planetary nebula NGC 6572", Astron Astrophys 207, L5

M Moles, A del Olmo, J Masegosa & J D Perea (1988), "The nature of the N-galaxy 3C120", Astron Astrophys 197, 1

M de Muizon, R G Strom, M J Oort, J J Claas & R Braun (1988), "G70.7+1.2: Supernova, nova or stellar shell?", Astron Astrophys 193, 248

K Mukai, P A Charles & A P Smale (1988), "An apparent visual companion of QQ Vul (E2003+225)", Astron Astrophys 194, 153

P G Murdin (1988), "Supernovae", IAU Circ 4546

T Naylor, P A Charles, J E Drew & B J M Hassall (1988), "Spectroscopy of the M15 X-ray source: discovery of binary motion and an unusual systemic velocity", MNRAS 233, 285

J van Paradijs et al (1988), "Optical observations of the eclipsing binary radio pulsar PSR1957+20", Nature 334, 684

Gillian Pearce, Bruce Patchett, Jeremy Allington-Smith & Ian Parry (1988), "Observations of the supernova SN 1987L with the new Faint Object Spectrograph on the 4.2m William Herschel Telescope", Astrophys Space Sci 150, 267

E Perez (1988), "3C446", IAU Circ 4640

Enrique P, rez, M V Penston, Clive Tadhunter, E Mediavilla & M Moles (1988). "An accretion disc in the broad-line radio galaxy 3C390.3?", MNRAS 230, 353

A D Petford et al (1988) 8) "Stellar integrated fluxes for 216 stars in the wavelength range 380 nm - 900 nm". Astron Astrophys 203, 341

A Piters, C de Jager & H Nieuwenhuijzen (1988), "The atmospheric structure, stellar wind and binary characteristics of the hypergiant HR8752 (G0-5Ia<sup>+</sup>)". Astron Astrophys 196, 115

R Rebolo & J E Beckman (1988). "Lithium and rotation in the Hyades late F and G stars". Astron Astrophys 201, 267

R Rebolo, P Molero, C Abia & J E Beckman (1988). "Abundances of <sup>9</sup>Be in a sample of highly metal-deficient dwarfs: implications for early galactic nucleosynthesis and primordial lithium". Astron Astrophys 193, 193

R Rebolo, P Molero & J E Beckman (1988). "Lithium abundances in metal-deficient dwarfs", Astron Astrophys 192, 192

V Reglero, A Gim, nez, J Fabregat, E de Castro, M J Fernandez-Figueroa & A de Castro (1988). "H $\beta$  photometry for uvby standard stars". Astron J 95, 1558

G F R N Rhee & P Katgert (1988). "Radial velocities of 31 Abell clusters of galaxies", Astron Astrophys Suppl 72, 243

A Riera, A Mampaso, P J Phillips, J M Vilchez & A Manchado (1988). "Spectroscopic study of gas outflows in the bipolar nebula S106". Mass Outflows from Stars and Galactic Nuclei (Kluwer), eds Bianchi and Gilmozzi p285

G Rosselló et al (1988). "UBVRI photoelectric photometry of high proper motion stars". *Astron Astrophys Suppl* 75, 21

S M Scarrott (1988). "An optical polarization study of the L1551-IRS5 jet". *MNRAS* 231, 39p

S M Scarrott (1988). "Optical polarization studies of Herbig-Haro Objects. IV: The HH34 complex", *MNRAS* 213, 1055

S M Scarrott & R D Woltencroft (1988), "An optical polarization study of the Reipurth 50 nebulosity", *MNRAS* 231, 1019

E D Skillman, J Melnick, R Terlevich & M Moles (1988). "The extremely low oxygen abundance of GR 8: a very low luminosity dwarf irregular galaxy". *Astron Astrophys* 196, 31

F G Smith, D H P Jones, J S B Dick & C D Pike (1988). "The optical polarization of the Crab Pulsar". *MNRAS* 233, 305

D J Stickland, C D Pike, C Lloyd & Jack Ells (1988). "Times of minima of two WR eclipsing binaries". *Observatory*, 108, 151

G M Stirpe, A G de Bruyn & E van Groningen (1988). "Broad emission line variability in the Seyfert 1 galaxies NGC 5548 and NGC 3783". *Astron Astrophys* 200, 9

J Torra, F Figueras, C Jordi, J M Paredes & G Rosselló (1988). "A contribution to the photometric observations for HIPPARCOS". Proc: Scientific Aspects of the HIPPARCOS Input Catalogue (CIRT), eds Torra and Turon, p355

S W Unger, et al (1988). "Radio ejection and broad forbidden emission lines in the Seyfert galaxy NGC 7674". *MNRAS* 234, 745

E A Valentijn & S Casertano (1988). "Relative velocities of dumbbell galaxies". *Astron Astrophys* 206, 27

J M Vilchez, M G Edmunds & B E J Pagel (1988). "The abundance gradient in NGC 3344". *PASP* 100, 1428

J M Vilchez, B E J Pagel, Angeles I Diaz, Elena Terlevich & M G Edmunds (1988). "The chemical composition gradient across M 33". *MNRAS* 235, 633

J V Wall (1988), "The early universe - an observers' view". *The Early Universe* (Reidel), eds. Unruh and Semenoff, p335

J Walsh, D King, R Clegg & D Middlemas (1988), "Supernova 1988R in MCG 9-23-9". *IAU Circ* 4654

N A Walton, S R Pottasch, N K Reay & A R Taylor (1988). "The central star of NGC7027". *Astron Astrophys* 200, L21

M Whittle, A Pedlar, E J A Meurs, S W Unger, D J Axon & M J Ward (1988). "Radio lobes and [OIII] profile substructure in Seyfert galaxies". *Astrophys J* 326, 125

M Whittle, A Pedlar, E J A Meurs, S W Unger, D J Axon & M J Ward (1988). "The interaction of radio jets with the narrow line region in Seyfert galaxies". Proc: Active Galactic Nuclei, (Springer) eds Miller and Wiita, p360

M Whittle, S W Unger, A Pedlar, D J Axon, E J A Meurs & M J Ward (1988), "Extended narrow line region morphology and its implication for a beamed ionizing radiation field in Seyfert galaxies". Supermassive Black Holes, (CUP) ed Kafatos, p80

H Zinnecker, C J Keable, J S Dunlop, R D Cannon & W K Griffiths (1988). "The nuclei of nucleated dwarf elliptical galaxies - are they globular clusters?". Proc: The Harlow-Shapley Symposium on Globular Cluster Systems in Galaxies, eds Grindlay and Davis, p603

## **Instrumental**

The following is a list of papers which, although containing no observational results, describe the design or operation of ING telescopes and instruments. No attempt at completeness has been made in this list.

Paul Atherton (1988). "Fabry-Perot interferometers". Proc workshop: Instrumentation for Ground-Based Optical Astronomy, (Springer-Verlag) ed L B Robinson, p124

Francisco Diego (1988), "Aspects of the optical design of the AAT and WHT echelle spectrographs". Proc workshop: Instrumentation for Ground-Based Optical Astronomy, (Springer-Verlag) ed L B Robinson, p6

C N Dunlop & J V Major (1988), "A Polaris seeing monitor". MNRAS 235, 585

R P Edwin, R W Hilditch & M M Jarad (1988). "The stability and developments of a spectrograph for small telescopes". Observatory, 108, 123

Richard S Ellis & Ian R Parry (1988). "Multiple object spectroscopy". Proc workshop: Instrumentation for Ground-Based Optical Astronomy, (Springer-Verlag) ed L B Robinson, p192

P R Jorden (1988). "Instrument control and data acquisition". Proc workshop: Instrumentation for Ground-Based Optical Astronomy, (Springer-Verlag) ed L B Robinson, p595

David D Walker (1988). "Overall philosophy of the echelle spectrographs for the Anglo Australian Telescope and William Herschel Telescope". Proc workshop: Instrumentation for Ground-Based Optical Astronomy, (Springer-Verlag) ed L B Robinson, p21

C G Wynne & S P Worswick (1988). "Atmospheric dispersion at prime focus". MNRAS 230, 457