

**ING La Palma Technical Note no. 80**

**ING bibliography 1990**

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This bibliography contains publications in refereed journals appearing in 1990 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 bibliographies for 1984-1989 which appeared in Technical Notes 62, 66 and 77. The search was limited (owing to time) to the following journals only:

Astron Astrophys, Astrophys J, Astrophys & Space Science, Astron J, Irish A J, MNRAS, Nature, Observatory, PASP, QJRAS, Rev Mex de Astr, Space Science Rev.

The list contains 104 publications given in the order WHT (37), INT (47) and JKT (20). Where more than one telescope is referred to the publication is listed under the telescope with the largest aperture. I would be grateful for information on any errors or omissions in the list and to receive any relevant preprints or reprints for future compilations.

W L Martin

## William Herschel Telescope (4.2m)

R W Argyle & Patricia Eldridge (1990), "Optical positions of Seyfert galaxies - III", MNRAS 243, 504

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D F Buscher, C A Haniff, J E Baldwin & P J Warner (1990), "Detection of a bright feature on the surface of Betelgeuse", MNRAS 245, 7p

D Carter & E M Sadler (1990), "Kinematics of the dwarf spheroidal galaxy NGC 205", MNRAS 245, 12p

J Cepa & J E Beckman (1990), "Distribution, sizes, and luminosity function of the HII regions in NGC 4321 ", Astron Astrophys Suppl, 83, 211

Jordi Cepa & John E Beckman (1990), "Star formation triggering by density waves in the grand design spirals NGC 3992 and NGC 628", Astrophys J 349, 497

Jessica M Chapman, L Staveley-Smith, D J Axon, S W Unger, R J Cohen, A Pedlar & R D Davies (1990), "A combined optical, infrared and radio study of the megamaser galaxy III Zw 35", MNRAS 244, 281

Mark Cropper, K O Mason & K Mukai (1990), "Magnetic fields in AM Her systems: a possible field for 1E1048.5 + 5241 (EK UMa) from cyclotron humps", MNRAS 243, 565

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G Efstathiou, N Kaiser, W Saunders, A Lawrence, M Rowan-Robinson, R S Ellis, & C S Frenk (1990), "Large-scale clustering of IRAS galaxies", MNRAS 247, 10p

A Fitzsimmons, I P Williams, C-I Lagerkvist & M Dahlgren (1990), "Spectra of six asteroids obtained at La Palma", MNRAS 247, 26p

D A Forbes, C S Crawford, A C Fabian & R M Johnstone (1990), "Extended emission-line gas around the quasars 3C254 and 3C309.1; very massive cooling flows", MNRAS 244, 680

R J Garcia Lpez, R Rebolo & J E Beckman (1990), "The HeI D<sub>3</sub> 5876 • line as an activity and structural indicator in F-type Hyades stars", Astrophys & Space Science 169, 67

R G, nova, J E Beckman, C D McKeith & E Barnett (1990), "High-resolution observations of interstellar NaI and KI absorptions towards giants within 200 pc from the Sun", Astrophys & Space Science 171, 235

J B Hutchins, S G Neff, S A Stanford, E Lo & S W Unger (1990), "Imaging and two-dimensional spectra of the IR-bright galaxy NGC 2146: a recent low-energy merger?", Astron J 100, 60

N Jackson & I W A Browne (1990), "Spectral differences between radio galaxies and quasars", Nature, 343, 43

G Machin, J Allington-Smith, P J Callanan, P A Charles, B J M Hassall, K O Mason, K Mukai, T Naylor, A P Smale & J van Paradijs (1990), "WHT observations of cataclysmic variables in globular clusters - II: The CV candidates in M71", MNRAS 242, 9p

G Machin, P J Callanan, P A Charles, J Thorstensen, K Brownsberger, R H D Corbet, R Hamwey, E T Harlaftis, K O Mason & K Mukai (1990), "Optical and X-ray observations of 4U0614 + 09", MNRAS 247, 205

T R Marsh (1990), "Detection of the secondary star in HT Cassiopeiae", Astrophys J 357, 621

J Meaburn, M J Whitehead, J C Raymond, C A Clayton & A P Marston (1990), "Echelle observations of the multiple shells of the supernova remnant IC 443", Astron Astrophys 227, 191

K Mukai, K O Mason, S B Howell, J Allington-Smith, P J Callanan, P A Charles, B J M Hassall, G Machin, T Naylor, A P Smale & J van Paradijs (1990), "Spectroscopy of faint, high latitude cataclysmic variable candidates", MNRAS 245, 385

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E P, rez, A Manchado, P Garcia-Lario & S R Pottasch (1990), "Two new Seyfert galaxies from the IRAS Point Source Catalogue", Astron Astrophys 227, 407

Ismael P, rez-Fournon & Andrew S Wilson (1990), "The extended narrow-line region in NGC 4151", Astrophys J 356, 456

T P Ray, R Poetzel & R Mundt (1990), "Optical jets from the high-luminosity young stars LkH $\alpha$  234 and AFGL 4029", Astrophys J 357, L45

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S M Scarrott, C D Rolph & C N Tadhunter (1990), "Imaging polarimetry of the high-z radio galaxy 3C368", MNRAS 243, 5p

H Schild, L J Smith & A J Willis (1990), "Optical spectroscopy of WR stars in M33 and M31", *Astron Astrophys* 237, 169

C N Tadhunter, S M Scarrott & C D Rolph (1990), "The giant bipolar reflection nebula associated with Cygnus A (3C 405)", *MNRAS* 246, 163

S W Unger, K Taylor, A Pedlar, H S Ghataure, M V Penston & A Robinson (1990), "The nature of the high-velocity gas in NGC 1275: first results with TAURUS-2 on the William Herschel Telescope", *MNRAS* 242, 33p

A M Varela, J Cepa, J E Beckman, C Muñoz-Tuñón & J M Vilchez (1990), "Departures from axial symmetry and starburst activity in the bulge of NGC 4736", *Astrophys & Space Science* 170, 305

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S A Bell, P P Rainger, G Hill & R W Hilditch (1990), "A photometric and spectroscopic study of BX Andromedae", *MNRAS* 244, 328

Richard G Bower, Richard S Ellis, James A Rose & Ray M Sharples (1990), "The stellar populations of early-type galaxies as a function of their environment", *Astron J* 99, 530

F Caputo, A Chieffi, V Castellani, M Collados, C Martinez Roger & E Paez (1990), "CCD photometry of stars in the old open cluster NGC 188", *Astron J* 99, 261

Hector O Castañeda, J M Vilchez & Marcus V F Copetti (1990), "A remarkable feature in the giant extragalactic HII region NGC 5471", *Astrophys J* 365, 164

E de Castro, M J Fernandez-Figueroa, M Cornide, J E Armentia & V Reglero (1990), "CaII H and K spectroscopic observations in active binary systems", *Astrophys & Space Science* 170, 99

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P L Dufton, P J F Brown, A Fitzsimmons & D J Lennon (1990), "The chemical composition of the northern double cluster h and χ Persei and the loose association Cepheus OB III", *Astron Astrophys*, 232, 431

C Esteban, J M Vilchez, A Manchado & M G Edmunds (1990), "Spatially resolved spectroscopic of WR ring nebulae - I: NGC2359 and RCW78", *Astron Astrophys* 227, 515

T Fernandez-Castro, R Gonzalez-Riestra, A Cassatella & J J Fuensalida (1990), "Simultaneous observations of the symbiotic star BF Cygni", *Astron Astrophys* 227, 422

A Fitzsimmons, P J F Brown, P L Dufton & D J Lennon (1990), "Galactic abundance gradients from B-type stars in young clusters and associations", *Astron Astrophys* 232, 437

- M T Friend, J S Martin, Robert Connon Smith & D H P Jones (1990), "The 8190 • sodium doublet in cataclysmic variables - II: Too cool for comfort", MNRAS 246, 637
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- A Herrero, R P Kudritzki & J M V<sup>I</sup>lchez (1990), "NLTE analysis of massive OB stars in open clusters", Astrophys & Space Science 169, 7
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- Ian D Howarth & Ulrich Heber (1990), "The spectroscopic orbit and evolution of HD 128220, a system containing an O subdwarf ", PASP 102, 912
- N Jackson, I W A Browne, D L Shone & K R Lind (1990), "Observations of the quasar 0800+608", MNRAS 244, 750
- William C Keel (1990), "Shock excitation, nuclear activity and star formation in NGC6240", Astron J 100, 356
- D J Lennon, P L Dufton, A Fitzsimmons, T Gehren & P E Nissen (1990), "Dolidze 25: a metal-deficient galactic open cluster", Astron Astrophys 240, 349
- A Manchado, P Garc<sup>I</sup>a-Lario, K C Sahu & S R Pottasch (1990), "Three new young objects from the IRAS Point Source Catalogue", Astron Astrophys Suppl 84, 517
- F Mantovani, D J Saikia, I W A Browne, R Fanti, T W B Muxlow & L Padrielli (1990), "The steep-spectrum low-frequency variable source 3C99: radio and optical observations", MNRAS 245, 427
- T R Marsh & Keith Horne (1990), "Emission-line mapping of the dwarf nova IP Pegasi in outburst and quiescence", Astrophys J 349, 593
- J Meaburn & M J Whitehead (1990), "A shock-ionized knot in MI6 (M16-HH1), observed with a stepped, echelle multi-slit", Astron Astrophys 235, 395
- R H Mendez, A Herrero & A Manchado (1990), "Spectral and radial velocity studies of 5 northern central stars of planetary nebulae", Astron Astrophys 229, 152
- D Middlemass (1990), "A model for the planetary nebula NGC 7027", MNRAS 244, 294
- P S Mitchell, L Miller & B J Boyle (1990), "Luminous quasars at high redshift", MNRAS 244, 1
- M Moles, A Aparicio & J Masegosa (1990), "The metal content of GR8 and Sextans B", Astron Astrophys, 228, 310
- C Mu<sup>oz</sup>-Tu<sup>ro</sup>n, J M V<sup>I</sup>lchez & H O Casta<sup>eda</sup> (1990), "Long slit spectroscopy of the nuclear zone of NGC 253", Astrophys & Space Science 170, 315

C P O'Dea, S A Baum & G B Morris (1990), "CCD observations of GigaHertz-peaked-spectrum radio sources", Astron Astrophys Suppl 82, 261

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M V Penston et al (1990), "The extended narrow line region of NGC 4151 - I: Emission line ratios and their implications", Astron Astrophys 236, 53

J P Phillips, A Riera & A Mampaso (1990), "The core-halo structure of IC 418", Astron Astrophys 234, 454

D L Pollacco, C N Tadhunter & P W Hill (1990), "The evolutionary status of the peculiar variable star V348 Sagittarii", MNRAS 245, 204

P P Rainger, R W Hilditch & S A Bell (1990), "The contact binary system TY Bootis", MNRAS 246, 42

P P Rainger, S A Bell & R W Hilditch (1990), "The binary system VW Bootis", MNRAS 246, 47

J M Rodríguez Espinosa & R M Stanga (1990), "NGC 985: extended ionized regions and the far-infrared luminosity of a ring-shaped Seyfert galaxy", Astrophys J 365, 502

S M Scarrott, C D Rolph, R D Woltencroft, H J Walker & K Sekiguchi (1990), "The nature of the bipolar nebula associated with IRAS07131-0147", MNRAS 245, 484

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N A Walton, J R Walsh & K C Sahu (1990), "The kinematic structure of NGC 7139", Astron Astrophys 230, 445

## **Jacobus Kapteyn Telescope (1.0m)**

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J E Beckman & J Cepa (1990), "The nature of arms in spiral galaxies - I: azimuthal colour profiles of NGC 7479 and NGC 1832", *Astron Astrophys* 229, 37

E Casuso, J E Beckman & J Cepa (1990), "An improved evolutionary model for stellar population applied to NGC 2903 ", *Astrophys & Space Science* 170, 275

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Angeles I Díaz, Miguel Sanchez Portal, Roberto Terlevich & Elena Terlevich (1990), "CCD surface photometry of the Seyfert 1 galaxy NGC 4151", *Astrophys & Space Science* 171, 29

C Done, M J Ward, A C Fabian, H Kunieda, S Tsuruta, A Lawrence, M G Smith & W Wamsteker (1990), "Simultaneous multifrequency observations of the Seyfert 1 galaxy NGC 4051: constant optical-infrared emission observed during large-amplitude X-ray variability", *MNRAS* 243, 713

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F Figueras, C Jordi, G Rossetti & J Torra (1990), "UBVRI photometry of G,K,M Hipparcos stars", *Astron Astrophys Suppl* 82, 57

A Fitzsimmons, I P Williams, G P Williams & P J Andrews (1990), "Narrow-band photometry of Comet P/Halley - OH and H<sub>2</sub>O scalelengths and pre-perihelion production rates", *MNRAS* 244, 453

Steve B Howell, Paula Szkody, Tobias J Kreidl, Keith O Mason & E M Puchnarewicz (1990), "CCD time-resolved photometry of faint cataclysmic variables - III" *PASP* 102, 758

M R Kidger & J A de Diego (1990), "Rapid variations and a very deep minimum in the light curve of 3C 345", *Astron Astrophys* 227, L25

M R Kidger, P Garcia Lario & J A de Diego (1990), "Visible and near-infrared monitoring of 3C 279 in 1988-1989", *Astrophys & Space Science* 171, 13

Tobias J Kreidl, Rafael Garrido, Lin Huang, Zihe Guo, Juan A Belmonte, J D Femie, Juraj Zverko, Jozef Juhnovsky, Werner W Weiss, Ian Elliot & Jaymie M Matthews (1990), "Variability of the Ap star 21 Com: results from multiple-site campaigns", *MNRAS* 245, 642

R F Peletier, E A Valentijn & R F Jameson (1990), "Near-infrared photometry of bright elliptical galaxies", *Astron Astrophys* 233, 62

M Prieto, J Cepa, C Muñoz Tuñón, J E Beckman & A M Varela (1990), "Photometric separation of the bulge and disc components of spirals using CCD imaging", *Astrophys & Space Science* 170, 225

V Reglero, A Giménez & A Estela (1990), "The active eclipsing binary RS Canum Venaticorum", *Astron Astrophys* 231, 375

R E Schulte-Ladbeck, C Aspin, A M Magalhdes & H E Schwarz (1990), "A polarimetric survey of symbiotic stars", *Astron Astrophys Suppl* 86, 227

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