

**ING La Palma Technical Note no. 97**

**ING bibliography and publication rate - 1994**

**W L Martin (RGO)**

**May 1995**

## Bibliography

Below is the list of research papers published in 1994 that resulted from observations made at the Isaac Newton Group of Telescopes. Only papers appearing in refereed journals have been included, although many useful data have also appeared elsewhere, notably in workshop and conference proceedings.

The list totals 138 publications, 78 publications contain results from the WHT, 63 contain results from the INT and 44 contain results from the JKT.

### WHT

Jeremy Allington-Smith et al (1994), "A Low Dispersion Survey Spectrograph (LDSS-2) for the William Herschel Telescope", PASP 106, 983

S Arribas and E Mediavilla (1994), "Complex ionization structure and kinematics in the circumnuclear region of NGC 3227", Astrophys J 437, 149

M J Barlow, J E Drew, J Meaburn and R M Massey (1994), "The shock excited P Cygni nebula", MNRAS 268, L29

N Bartel et al (1994), "The shape, expansion rate and distance of supernova 1993J from VLBI measurements", Nature 368, 610

S A Bell, D L Pollacco and R W Hilditch (1994), "Direct optical observations of the secondary component of UU Sagittae", MNRAS 270, 449

M Blietz, M Cameron, S Drapatz, R Genzel, A Krabbe and P van der Werf (1994), "Near-infrared spectroscopic imaging of the circumnuclear environment of NGC 1068", Astrophys J 421, 92

J Casares and P A Charles (1994), "Optical studies of V404 Cyg, the X-ray transient GS 2023+338 - IV: The rotation speed of the companion star", MNRAS 271, L5

M S Catalán, S C Davey, M J Sarna, Robert Connon Smith and Janet H Wood (1994), "A spectroscopic and evolutionary study of the pre-cataclysmic variable NN Serpentis", MNRAS 269, 879

M J Coe, L R Jones and H Lehto (1994), "A deep radio search for the counterpart to the enigmatic X-ray pulsar 1E2259+586", MNRAS 270, 178

E S Conlon, P L Dufton and F P Keenan (1994), "Abundance analysis of the hot post-AGB star Barnard 29", Astron Astrophys 290, 897

J A de Diego, M R Kidger, E Pérez and L O Takalo (1994), "Intermediate-resolution spectropolarimetry of a small sample of quasars", Astrophys J 424, 76

M Dietrich et al (1994), "Monitoring of active galactic nuclei - IV: The Seyfert 1 galaxy NGC 4593", *Astron Astrophys* 284, 33

S P Driver, S Phillipps, J I Davies, I Morgan and M J Disney (1994), "Multicolour faint galaxy number counts with the Hitchhiker parallel CCD camera", *MNRAS* 266, 155

S P Driver, S Phillipps, J I Davies, I Morgan and M J Disney (1994), "Dwarf galaxies at z=0.2: photometry of the cluster Abell 963", *MNRAS* 268, 393

A Eckart, P P van der Werf, R Hofmann and A I Harris (1994), "Interstellar medium and star formation in the nearby QSO I Zw 1", *Astrophys J* 424, 627

César Esteban, José M Vílchez and Linda J Smith (1994), "Spectroscopy of ring nebulae around Wolf-Rayet stars in M33", *Astron J* 107, 1041

A Fitzsimmons, M Dahlgren, C-I Lagerkvist, P Magnusson and I P Williams (1994), "A spectroscopic survey of D-type asteroids", *Astron Astrophys* 282, 634

R J García López, R Rebolo and E L Martín (1994), "Pre-main sequence lithium burning - II: Pleiades low mass stars", *Astron Astrophys*, 282, 518

M A Garlick, J P D Mittaz, S R Rosen and K O Mason (1994), "Spin-resolved optical CCD spectroscopy of GK Persei", *MNRAS* 269, 517

M A Garlick, S R Rosen, J P D Mittaz, K O Mason and D De Martino (1994), "Spin-resolved optical CCD spectroscopy and photometry of BG Canis Minoris", *MNRAS* 267, 1095

Karl Glazebrook, Joseph Lehár, Richard Ellis, Alfonso Aragón Salamanca and Richard Griffiths (1994), "An unusual high-redshift object discovered with the Hubble Space Telescope: peculiar star burst galaxy or new gravitational lens?", *MNRAS* 270, L63

G Gómez and R López (1994), "Spectral evolution of the He-poor supernovae 1990U in NGC 7479 and 1991A in IC 2973", *Astron J* 108, 195

Rosa M González-Delgado et al (1994), "Violent star fomiation in NGC 2363", *Astrophys J* 437, 239

P Goudfrooij, L Hansen, H E Jørgensen and H U Nørgaard-Nielsen (1994), "Interstellar matter in Shapley-Ames elliptical galaxies - II: The distribution of dust and ionized gas", *Astron Astrophys Suppl* 105, 341

N C Hambly, F P Keenan, P L Dufton, P J F Brown, M J Irwin and A Fitzsimmons (1994), "Observations of a possible companion to the high-latitude B-type star PG 0832+676", *MNRAS* 271, 729

P L Hammersley, M R Kidger and A Mampaso (1994), "The use of near-infrared spectroscopy to reclassify HR 8881", *MNRAS* 266, 678

S C Hargreaves, G Gilmore, M I Irwin and D Carter (1994), "A dynamical study of the Sextans dwarf spheroidal galaxy", *MNRAS* 269, 957

J C Hargreaves, G Gilmore, M J Irwin and D Carter (1994), "A dynamical study of the Ursa Minor dwarf spheroidal galaxy", *MNRAS* 271, 693

A Herrero, D S Lennon, J M Vílchez, R P Kudritzki and R H Humphreys (1994), "Spectroscopic observations of AB-supergiants in M31 and M33", *Astron Astrophys* 287, 885

Paul C Hewett, Michael J Irwin, Craig B Foltz, Margaret E Harding, Ruth T Corrigan, Rachel L Webster and Nadine Dinshaw (1994), "The close-separation gravitational lens candidate Q1009-0252", *Astron J* 108, 1534

Mike Irwin and Anna N Zytkow (1994), "FY Aquilae and the gamma-ray burster GB 790331", *Astrophys J* 433, L81

R J Ivison, M F Bode and J Meaburn (1994), "An atlas of high resolution line profiles of symbiotic stars - II: Echelle spectroscopy of northern sky objects", *Astron Astrophys Suppl* 103, 201

Hugh R A Jones, Lance Miller and Karl Glazebrook (1994), "A new candidate brown dwarf from an infrared survey", *MNRAS* 270, L47

S N Kemp, B Bates, P L Dufton, F P Keenan and A S Montgomery (1994), "Optical and UV spectroscopy towards stars in the direction of the Cohen high-velocity H stream", *MNRAS* 270, 597

Jari K Kotilainen and Martin J Ward (1994), "The host galaxies of Seyfert I nuclei", *MNRAS* 266, 953

R C Kraan-Korteweg, A J Loan, W B Burton, O Lahav, H C Ferguson, P A Henning, & D Lynden-Bell (1994), "Discovery of a nearby spiral galaxy behind the Milky Way", *Nature* 372, 77

Mark Lacy et al (1994), "8C1435+635: a radio galaxy at z=4.25", *MNRAS* 271, 504

Mark Lacy and Steve Rawlings (1994), "A new interpretation of the aligned structures of the z~1 radio galaxy 3C 356", *MNRAS* 270, 431

Huib Jan van Langevelde, Ewine F van Dishoeck, Paul P van der Werf and Geoffrey A Blake (1994), "The spatial distribution of excited H<sub>2</sub> in T Tau: a molecular outflow in a young binary system", *Astron Astrophys* 287, L25

K J Leech, M Rowan-Robinson, A Lawrence and D J Hughes (1994), "Optical structure of a large sample of ultraluminous IRAS galaxies", *MNRAS* 267, 253

James R Lewis et al (1994), "Optical observations of supernova 1993J from La Palma - I: Days 2 to 125", *MNRAS* 266, L27

J E Little, P L Dufton, F P Keenan and E S Conlon (1994), "Optical and HI observations of high-velocity gas toward HD 203664", *Astrophys J* 427, 267

Roberto Maiolino, Ruggero Stanga, Marco Salvati and José M Rodríguez Espinosa (1994), "NGC 5506: physics of the extended narrow line region", *Astron Astrophys* 290, 40

Roeland P van der Marel (1994), "Velocity profiles of galaxies with claimed black holes - III: Observations and models for M87", *MNRAS* 270, 271

Roeland P van der Marel, Hans-Walter Rix, Dave Carter, Marijn Franx, Simon D M White and Tim de Zeeuw (1994), "Velocity profiles of galaxies with claimed black holes - I: Observations of M31, M32, NGC 3115 and NGC 4594", *MNRAS* 268, 521

T R Marsh, E L Robinson and J H Wood (1994), "Spectroscopy of A0620-00: the mass of the black hole and an image of its accretion disc", *MNRAS* 266, 137

Eduardo L Martín, Rafael Rebolo, Jorge Casares and Philip A Charles (1994), "Li abundances in late-type companions to neutron stars and black hole candidates", *Astrophys J* 435, 791

Eduardo L Martín, Rafael Rebolo and Antonio Magazzù (1994), "Constraints to the masses of brown dwarf candidates from the lithium test", *Astrophys J* 436, 262

E L Martín, R Rebolo, A Magazzù and Ya V Pavlenko (1994), "Pre-main sequence lithium burning - I: Weak T Tauri stars", *Astron Astrophys* 282, 503

P F L Maxted, G Hill and R W Hilditch (1994), "Studies of early-type variable stars - XI: Absolute parameters of the Algol system RZ Cassiopeiae", *Astron Astrophys* 282, 821

Steven B Mutz et al (1994), "The  $\Theta$ -z relation for HST bulges and disks out to  $z \sim 0.8$ ", *Astrophys J* 434, L55

F Najarro, D S Hillier, R P Kudritzki, A Krabbe, R Genzel, D Lutz, S Drapatz and T R Geballe (1994), "The nature of the brightest galactic center He I emission line star", *Astron Astrophys* 285, 573

A J Norton, D Chakrabarty, M J Coe, C Everall, M H Finger, T A Prince, P Roche, M T Stollberg and R B Wilson (1994), "Multiwavelength observations of the Be star/X-ray binary EXO2030+375 during outburst", *MNRAS* 271, 981

Tom Oosterloo, Marc Balcells and David Carter (1994), "NGC 5982: a smooth triaxial elliptical", *MNRAS* 266, L10

René D Oudmaijer and Eric Bakker (1994), "Time-resolved spectroscopy of the post-AGB star HD 56126", *MNRAS* 271, 615

Max Pettini, Linda I Smith, Richard W Hunstead and David L King (1994), "Metal enrichment, dust and star formation in galaxies at high redshifts - III: Zn and Cr abundances for 17 damped Lyman-alpha systems", *Astrophys J* 426, 79

D L Pollacco and S A Bell (1994), "A preliminary analysis of the planetary nebula central star V477 Lyrae", *MNRAS* 267, 452

F Prada, I E Beckman, C D McKeith, J Castles and A Greve (1994), "Wavelength-dependent kinematics in the dusty inclined galaxy NGC 2146", *Astrophys J* 423, L35

F Prada, A Greve and C D McKeith (1994), "NGC 1569: identification from CaII infrared line spectra of the objects A,B as superluminous star clusters", *Astron Astrophys* 288, 396

A Richichi, Ch Leinert R Jameson and H Zinnecker (1994), "New binary young stars in the Taurus and Ophiuchus star-forming regions", *Astron Astrophys* 287, 145

A Robinson et al (1994), "The extended narrow line region of NGC 4151 - II: Spatial variations of the emission line intensities?", *Astron Astrophys* 291, 351

W R J Rolleston, P L Dufton and A Fitzsimmons (1994), "The chemical composition at a galactocentric distance of 13kpc", *Astron Astrophys* 284, 72

I Salamanca et al (1994), "Spectroscopic monitoring of active galactic nuclei - III: Size of the broad line region in NGC 3227", *Astron Astrophys* 282, 742

A E Sansom, G Peace and M Dodd (1994), "Line-strength gradients in the bulge components of NGC 3190 and 1023", MNRAS 271, 39

H M Schmid and H Schild (1994), "Raman scattered emission lines in symbiotic stars: a spectropolarimetric survey", Astron Astrophys 281, 145

M Shaw and C Tadhunter (1994), "The nature of the extended blue continuum in Cygnus A", MNRAS 267, 589

Evan D Skillman, Roberto J Terlevich, Robert C Kennicutt Jr, Donald R Garnett and Elena Terlevich (1994), "Spatially resolved optical and near-infrared spectroscopy of the low-metallicity galaxy UGC 4483", Astrophys J 431, 172

Ian Smail, Richard S Ellis and Mike Fitchett (1994), "Gravitational lensing of distant field galaxies by rich clusters - I: Faint galaxy redshift distributions", MNRAS 270, 245

Jason Spyromilio (1994), "Clumping and large-scale anisotropy in supernova 1993J", MNRAS 266, L61

G M Stirpe et al (1994), "Monitoring of active galactic nuclei - V: The Seyfert I galaxy Markarian 279", Astron Astrophys 285, 857

L J Storrie-Lombardi, R G McMahon, M J Irwin, and C Hazard (1994), "Evolution of Lyman-limit absorption systems over the redshift range  $0.40 < z < 4.69$ ", Astrophys J 427, L13

Arpad Szornoru, Puragra Guhathakurta, Jacqueline H van Gorkom, Johan H Knapen, David H Weinberg and Andrew S Fruchter (1994), "Properties of an HI-selected galaxy sample", Astron J 108, 491

L J Tacconi, R Genzel, M Blietz, M Cameron, A I Harris and S Madden (1994), "The nature of the dense obscuring material in the nucleus of NGC 1068", Astrophys J 426, L77

C N Tadhunter, S Metz and A Robinson (1994), "Cygnus A resolved: long slit spectroscopy of the extended emission-line system", MNRAS 268, 989

P G Tuthill, C A Haniff, J E Baldwin and M W Feast (1994), "No fundamental-mode pulsation in R Leonis?", MNRAS 266, 745

G Vladilo, M Centurión, K S de Boer, D L King, K Lipman, J S W Stegert, S W Unger and N A Walton (1994), "Interstellar and intergalactic gas towards SN 1993J in M81: a study of optical and 21cm spectra", Astron Astrophys 291, 425

J R Walsh and R E S Clegg (1994), "Polarized emission-line profiles in the core and halo of NGC 7027", MNRAS 268, L41

G M Williger, J A Baldwin, R F Carswell, A J Cooke, C Hazard, M J Irwin, R G McMahon and L J Storrie-Lombardi (1994), "Lyman-alpha absorption in the spectrum of the  $z=4.5$  QSO BR 1033-0327", Astrophys J 428, 574

## INT

- Marc Balcells and Reynier F Peletier (1994), "Colors and color gradients in bulges of galaxies", *Astron J* 107, 135
- M A Barstow, J B Holberg, M C Marsh, R W Tweedy, M R Burleigh, T A Fleming, D Koester, A J Penny and A E Sansom (1994), "RE 1738+665: the hottest DA white dwarf detected by ROSAT", *MNRAS* 271, 175
- M Bryce, B Balick and J Meaburn (1994), "Investigating the haloes of planetary nebulae - IV: NGC 6720, the Ring Nebula", *MNRAS* 266, 721
- M Centurión, G Vladilo,, K S de Boer, U Herbstmeier and U J Schwarz (1994), "Optical and 21-cm observations of high-velocity gas towards subdwarfs in the halo and early-type stars in the disk", *Astron Astrophys* 292, 261
- V S Dhillon, D H P Jones and T R Marsh (1994), "Observations of the eclipsing nova-like variable DW Ursae Majoris in a low state", *MNRAS* 266, 859
- P G van Dokkum, R F Peletier, R de Grijs and M Balcells (1994), "The vertical stellar distribution in NGC 6504: detection of a thick disk", *Astron Astrophys* 286, 415
- J G Doyle, E R Houdebine, M Mathioudakis and P M Panagi (1994), "Lower chromospheric activity in low activity M dwarfs", *Astron Astrophys* 285, 233
- J G Doyle, C K Mitrou, M Mathioudakis, S Avgoloupis, L N Mavridis, P P Varvoglis, F Graos and E Antonopoulou (1994), "Surface inhomogeneities on SZ Piscium", *Astron Astrophys* 291, 135
- P L Dufton, A Fitzsimmons and W R J Rolleston (1994), "The chemical compositions of the open clusters Be 94 and NGC 457", *Astron Astrophys* 286, 449
- C Eiroa, M M Casali, L F Miranda and E Ortiz (1994), "S 269-IRS 2: a massive young stellar object powering Herbig-Haro emission", *Astron Astrophys* 290, 599
- C Eiroa, L F Miranda, G Anglada, R Estalella and I M Torrelles (1994), "Herbig-Haro objects associated with extremely young sources in L 1527 and L 1448", *Astron Astrophys* 283, 973
- C Eiroa, J M Torellas, L F Miranda, G Anglada and R Estalella (1994), "Optical nebulosities associated with IRAS sources in dense cloud cores", *Astron Astrophys Suppl* 108, 73
- M I Fernández-Figueroa, D Montes, E DC Castro and M Cornide (1994), "Ca II H and K and Ha emissions in chromospherically active binary systems (RS Canum Venaticorum and BY Draconis)", *Astrophys J Suppl* 90, 433
- C Gallart, A Aparicio, C Chiosi, G Bertelli and J M Vílchez (1994), "Asymptotic giant branch stars in NGC 6822: Probes of star formation history", *Astrophys J* 425, L9
- J Gallego, J Zamorano, M Rego and A G Vitores (1994), "Discovery of an emitting ring in the Seyfert 1 galaxy UCM 2329+2500", *Astron Astrophys* 290, 705
- Karl Glazebrook, J A Peacock, C A Collins and L Miller (1994), "An imaging K-band survey - I: The catalogue, star and galaxy counts", *MNRAS* 266, 65
- P M Gondhalekar, B J Kellett, K A Pounds, L Matthews and J J Quenby (1994), "ROSAT/XRT-PSPC observations and the ionising continuum of the Seyfert 1 galaxy Mrk 478", *MNRAS* 268, 973

- J I González-Serrano, I Pérez-Fournon and R Morganti (1994), "Optical emission associated with the radio jet in B2 1243+269", MNRAS 267, 424
- E T Harlaftis, T R Marsh, V S Dhillon and P A Charles (1994), "A 60-night campaign on dwarf novae - II: Evidence for Balmer emission from the secondary star in IP Peg close to outburst", MNRAS 267, 473
- J P Henry et al (1994), "RX J1759.4+6638: An X-ray selected quasar at redshift of 4.320", Astron J 107, 1270
- R D Jeffries, P B Byrne, J G Doyle, J G Anders, D J James and A C Lanzafame (1994), "BD+2204409: a rapidly rotating, low mass member of the Local Association", MNRAS 270, 153
- R D Jeffries, D J James and G E Bromage (1994), "RE 1816+541: a northern hemisphere analogue to the low-mass rapid rotator HK Aqr", MNRAS 271, 476
- Roelof S de Jong and Pieter C van der Kruit (1994), "Near-infrared and optical broadband surface photometry of 86 face-on disk dominated galaxies - I: Selection, observations and data reduction", Astron Astrophys Suppl 106, 451
- A Magazzù and E L Martín (1994), "A Herbig-Haro flow in HV Tauri", Astron Astrophys 287, 571
- C Martínez Roger, E Paez, V Castellani and O Straniero (1994), "The luminosity function of stars in the intermediate age open cluster NGC 7789", Astron Astrophys 290, 62
- I G Martinez-Pais, F Giovanelli, C Rossi and S Gaudenzi (1994), "An optical time-resolved spectroscopic study of SS Cygni - I: Quiescence", Astron Astrophys 291, 455
- Mariano Moles, Isabel Márquez, Josefa Masegosa, Ascensión del Olmo, Jaime Perea and Hatton Arp (1994), "Testing for interaction between the galaxies NGC 450 and UGC 807", Astrophys J 432, 135
- D Montes, M J Fernández-Figueroa, E De Castro and M Cornide (1994), "The Wilson-Bappu effect and other Ca II H and K line parameters relationships in chromospherically active binaries", Astron Astrophys 285, 609
- Paul Murdin (1994), "The stellar wind of the Crab supernova's progenitor", MNRAS 269, 89
- J P Osbome, A P Beardmore, P J Wheatley, P Hakala, M G Watson, K O Mason, B J M Hassall and A R King (1994), "The discovery of RE 1307+535: the shortest period AM Her system", MNRAS 270, 650
- J M Paredes et al (1994), "Photometric and H $\alpha$  observations of LSI+61°303: detection of a ~26 day V and JHK band modulation", Astron Astrophys 288, 519
- Michael W Richmond, Richard R Treffers, Alexei V Filippenko, Young Paik, Bruno Leibundgut, Eric Schulman and Caroline V Cox (1994), "UBVRI photometry of SN 1993J in M81: The first 120 days", Astron J 107, 1022
- K Robinson, M F Bode, A Skopal, R I Ivison and J Meaburn (1994), "On the nature of the emission-line profiles of symbiotic stars - I: Accretion discs", MNRAS 269, 1
- James A Rose, Richard G Bower, Nelson Caldwell, Richard S Ellis, Ray M Sharples, Peter Teague (1994), "Stellar populations in early-type galaxies: further evidence for environmental influences", Astron J 108, 2054

R G M Rutten and V S Dhillon (1994), "Roche tomography: imaging the stars in interacting binaries", *Astron Astrophys* 288, 773

R G M Rutten, V S Dhillon, K Horne and E Kuulkers (1994), "Spectral eclipse mapping of the accretion disk in the nova-like variable UX Ursae Majoris", *Astron Astrophys* 283, 441

M Santos-Lleó, I Clavel, P Barr, I S Glass, D Pelat, B M Peterson and G Reichert (1994), "Multifrequency monitoring of the Seyfert 1 galaxy NGC 4593 - I: Isolating the nuclear emission", *MNRAS* 270, 580

A D Scott, A Evans and J M C Rawlings (1994), "Extended red emission in the nova QV Vul", *MNRAS* 269, L21

R Víchez-Gómez, R Pelló and B Sanahuja (1994), "Detection of intra-cluster light in the rich clusters of galaxies Abell 2390 and Cl 1613+31", *Astron Astrophys* 283, 37

D A White, A C Fabian, S W Allen, A C Edge, C S Crawford, R M Johnstone, G C Stewart and W Voges (1994), "A ROSAT HRI observation of the Abell 478 cluster of galaxies", *MNRAS* 269, 589

P M Williams, K A van der Hucht, M R Kidger, T R Geballe and P Bouchet (1994), "The episodic dust-maker WR125 - II: Spectroscopy and photometry during infrared maximum", *MNRAS*, 266, 247

S E Woosley, Ronald G Eastman, Thomas A Weaver and Philip A Pinto (1994), "SN 1993J: a type IIb supernova", *Astrophys J* 429, 300

Hui Yang, Evan D Skillman and Richard A Sramek (1994), "A kinematic search for supernova remnants in giant extragalactic HII regions", *Astron J* 107, 651

## JKT

Clarissa S Barth, Jordi Cepa, José M Vílchez and Horacio A Dottori (1994), "CCD imaging of NGC 4861: ionized gas properties and stellar formation", *Astron J* 108, 2069

P B Byrne, A C Lanzafane, L M Sarro and R Ryans (1994), "Optical flaming on RS CVn stars: the case of II Peg in 1992 September", *MNRAS* 270, 427

H Dottoi, J Cepa, J Vílchez and C S Barth (1994), "CCD imaging of NGC 4861: morphology and brightness distribution", *Astron Astrophys* 283, 753

A C Edge, A C Fabian, S W Allen, C S Crawford, D A White, H Böhringer and W Voges (1994), "Zwicky 3146: the most massive cooling flow?", *MNRAS* 270, L1

Rhodri Evans (1994), "The variation of the scalelengths of galaxies at different wavelengths", *MNRAS* 266, 511

A Fitzsimmons and I P Williams (1994), "The nucleus of comet P/Levy 1991XI", *Astron Astrophys* 289, 304

Duncan A Forbes, R C Thomson, Wendy Groom and Gerard M Williger (1994), "A search for secondary nuclei in shell galaxies", *Astron J* 107, 1713

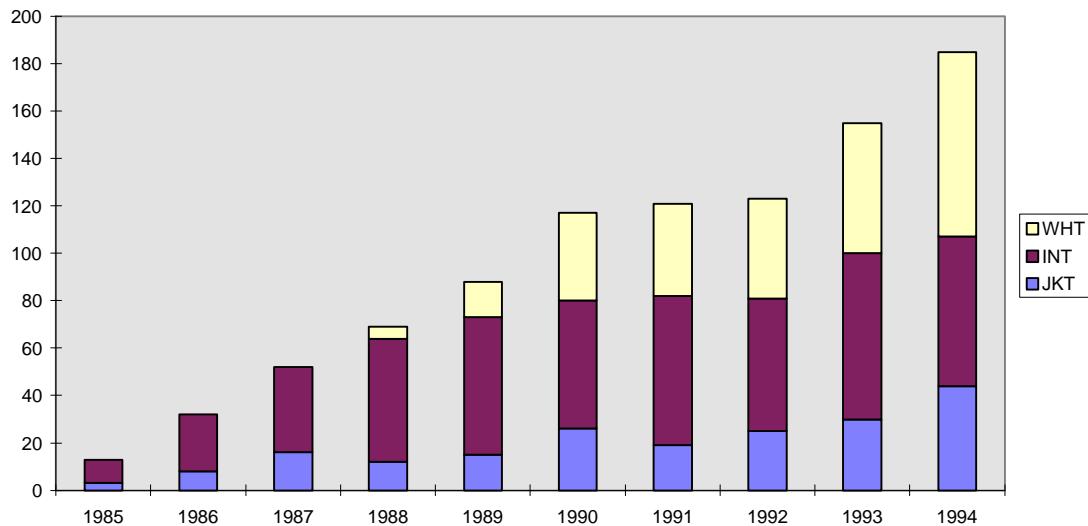
- P Goudfrooij, L Hansen, H E Jørgensen, H U Nørgaard-Nielsen, T de Jong and L B van den Hoek (1994), "Interstellar matter in Shapley-Ames elliptical galaxies - I: Multicolour CCD surface photometry", *Astron Astrophys Suppl* 104, 179
- P Goudfrooij, T de Jong, L Hansen and H U Nørgaard-Nielsen (1994), "Interstellar matter in elliptical galaxies - III: Properties of dust extinction", *MNRAS* 271, 833
- D Harper and D B Taylor (1994), "Analysis of ground-based observations of the satellites of Saturn 1874-1988", *Astron Astrophys* 284, 619
- David W Hogg, Carole Jackson, Anna N Zytkow, Mike Irwin, Rachel Webster and Scott Tremaine (1994), "A photographic search for satellites of Neptune", *Icarus* 107, 304
- R A Jansen, I H Knapen, J E Beckman, R F Peletier and R Hes (1994), "Measurements of dust extinction in highly inclined spiral galaxies", *MNRAS* 270, 373
- Robin L Kingsburgh and M J Barlow (1994), "Elemental abundances for a sample of southern galactic planetary nebulae", *MNRAS* 27, 257
- René D Oudmaijer, T R Geballe, L B F M Waters and K C Sahu (1994), "Discovery of near-infrared hydrogen line emission in the peculiar F8 hypergiant IRC +10420", *Astron Astrophys* 281, L33
- J van Paradijs et al (1994), "A 60-night campaign on dwarf novae - I: Photometric variability of SU UMa and YZ Cnc", *MNRAS* 267, 465
- A I Slavin, T J O'Brien and J S Dunlop (1994), "The structure Of the remnant of HR Del", *MNRAS* 266, L55
- D Wonnacott, B S Kellett, B Smalley and C Lloyd (1994), "Pulsational activity on IK Pegasi", *MNRAS* 267, 1045

## Analysis

The above list contains 138 publications, some of which include results from more than one telescope, 78 papers contain results from the WHT, 63 contain results from the INT and 44 contain results from the JKT. The corresponding figures for 1993 were 55 from the WHT, 70 from the INT and 30 from the JKT. As can be seen from the figure below, the combined publication rate has jumped again by 30 publications compared with 1993. In addition the number of papers published from the WHT has exceeded that from the INT for the first time and the number from the JKT is the highest to date.

Note that papers containing results from more than one telescope have been credited to each telescope used.

**Figure 1 ING refereed publications 1984-1994**



The chart below shows the authorship of all papers from 1984-1994 according to national group. The nationality of each author is attributed according to his or her address and equal weight is given to each author.

**Figure 2 Publications by national group 1984-1994**

