

Isaac Newton Group



ING LA PALMA TECHNICAL NOTE No. 124

ING BIBLIOGRAPHY AND PUBLICATION RATE (1999)

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Publications: Bibliography and Analysis

Bibliography

Below is the list of research papers published in 1999 that resulted from observations made at the Isaac Newton Group of Telescopes (ING). We have considered only papers appearing in refereed journals, although many useful data have also appeared elsewhere, notably in workshop conference proceedings and PhD theses. The search has been done throughout the principal international refereed journals, including *Nature*, *Science*, *Monthly Notices of Royal Astronomical Society* (MNRAS), *Astrophysical Journal* main, letters and supplements (ApJ,ApJS), *Astronomical Journals* (AJ), *Astronomy & Astrophysics* (AA), *Astronomy & Astrophysics Supplement Series* (AASS), *Publications of Astronomical Society of Pacific* (PASP), *Publications of Astronomical Society of Australia* (PASA), *New Astronomy* (NA), *New Astronomy Review* (NARev), *The Observatory, Astrophysics & Space Science* (ASS), *Revista Mexicana de Astronomía* (RMex), *Optics Letters* (OpLet) and *Planetary & Space Science* (PSS). We have not include *Icarus*, *Irish Astronomical Journal* and *Space Science Review*, in the search. These three journals contributed less than 2% in preceding counts.

The list totals 245 publications. 119 publications contain results from WHT, 81 contain results from INT and 45 contain results from JKT. Note that papers containing results from more than one telescope have been credited to each telescope used.

WHT

Published papers, using WHT data, in the above refereed journals, 1999

- 1)" The formation of lithium lines in the atmospheres of super Li-rich AGB stars " ,1999, *AA* ,**351**,273 ,C Abia ,Y Pavlenko ,P de Laverny
- 2)" Global structure and kinematics of the spiral galaxy NGC 2841 " ,1999, *AJ* ,**117**,1725 ,V L Afanasiev ,O K Sil'chenko
- 3)" Multifrequency observations of the interacting galaxy NGC 4922 (UCM 1259+234) " ,1999, *MNRAS* ,**302**,561 ,A Alonso-Herrer,M J Ward ,A Aragón-Salamanca,J Zamorano
- 4)" Dust emission from quasars and quasar host galaxies " ,1999, *MNRAS* ,**306**,161 ,P Andreani ,A Franceschini ,G Granato
- 5)" Two-dimensional spectroscopy in the circumnuclear region of the seyfert 1 ring galaxy NGC 985 " ,1999, *ApJ* ,**511**,680 ,S Arribas ,E Mediavilla ,C Del Burgo ,B García-Lorenzo
- 6)" Differential atmospheric refraction in integral-field spectroscopy: Effects and correction " ,1999, *AASS* ,**136**,189 ,S Arribas ,E Mediavilla ,B García-Lor,C del Burgo ,J J Fuensalida

- 7) " The rapid evolution of the born-again giant Sakurai's object " ,1999, *AA* ,**343**,507 ,M Asplund ,D L Lambert ,T Kipper ,D Pollaco ,M D Shetrone
- 8) " The first resolved and detected classical nova shell in X-rays: The shell of nova Persei 1901 " ,1999, *ApJ* ,**518**,L111 ,S Balman ,H B Ögelman
- 9) " A 98 per cent spectroscopically complete sample of the most powerful equatorradio sources at 408MHz " ,1999, *MNRAS* ,**310**,223 ,P N Best ,H J A Röttgeri ,M D Lehnert
- 10) " Dust-obscured star formation and AGN fuelling in hierarchical models of galaxy evolution " ,1999, *MNRAS* ,**309**,715 ,A W Blain ,A Jameson ,I Smail ,M S Longair ,J P Kneib ,R J Ivison
- 11) " A search for very low mass stars and brown dwarfs in the young σ oriocluster " ,1999, *ApJ* ,**521**,671 ,V J S Béjar ,M R Zapatero Oso ,R Rebolo
- 12) " The kinematics of the planetary nebula BD+30°3639 " ,1999, *MNRAS* ,**309**,731 ,M Bryce ,G Mellema
- 13) " Probable detection of starlight reflected from the giant planet orbiting τ Boötis " ,1999, *Nature* ,**402**,751 ,A C Cameron ,K Horne ,A Penny ,D James
- 14) " A cluster of filament of galaxies at redshift $z=2.5$? " ,1999, *ApJ* ,**511**,L1 ,A Campos ,A Yahil ,R A Windhorst ,E A Richards ,S Pascarelle ,C Impey ,C Petry
- 15) " A photometric investigation of the GRB 970228 afterglow and the associated nebosity " ,1999, *ApJ* ,**523**,593 ,F J Castander ,D Q Lamb
- 16) " Optical observations of GRB afterglows: GRB 970508 and GRB 980326 revisited " ,1999, *AASS* ,**138**,449 ,A J Castro-Tirado ,J Gorosabel
- 17) " Mapping the secondary star in QQ Vulpeculae " ,1999, *MNRAS* ,**310**,123 ,M S Catalán ,A D Schwope ,R C Smith
- 18) " The starburst-AGN connection in the active galaxies: the massive nuclear star-forming disk in NGC 4303 " ,1999, *ApJ* ,**514**,637 ,L Colina ,S Arribas
- 19) " INTEGRAL field spectroscopy of markarian 273: Mapping high-velocity gas flow and an off-nucleus seyfert 2 nebula " ,1999, *ApJ* ,**527**,L13 ,L Colina ,S Arribas ,K D Borne
- 20) " 1- μ m spectroscopy of normal OB stars " ,1999, *MNRAS* ,**302**,145 ,P S Conti ,I D Howarth
- 21) " The ROSAT Brightest Cluster Sample - III Optical spectra of the central clusgalaxies " ,1999, *MNRAS* ,**306**,857 ,C S Crawford ,S W Allen ,H Ebeling ,A C Edge ,A C Fabian
- 22) " Evidence for a massive black hole in the SO galaxy NGC 4342 " ,1999, *ApJ* ,**514**,704 ,N Cretton ,F C Van den Bosc

- 23) ” The power spectrum of the mass fluctuations measured from the $\text{Ly}\alpha$ for ” ,1999, *ApJ* ,**520**,1 ,R A C Croft ,D H Weinberg ,M Pettini ,L Hernquist ,N Katz
- 24) ” NaSt1: a Wolf-Rayet star cloaked by an η Car-like nebula ? ” ,1999, *MNRAS* ,**308**,82 ,P A Crowther ,L J Smith
- 25) ” Measurements of magnetic field strength on T Tauri stars ” ,1999, *AA* ,**341**,768 ,E W Cuether ,H Lehmann ,J P Emerson ,J Staude
- 26) ” A spectroscopic catalog of 10 distant clusters of galaxies ” ,1999, *ApJS* ,**122**,51 ,A Dressler ,I Smail ,B M Poggianti ,H Butcher ,W J Couch ,R S Ellis ,A Oemler Jr
- 27) ” Evidence for large-scale, global mass inflow and flaring on the late-type fast rotator BD+22°4409 ” ,1999, *AA* ,**341**,527 ,M T Eibe ,P B Byrne ,R D Jeffries ,A G Gunn
- 28) ” The ROSAT wide field camera extragalactic survey ” ,1999, *MNRAS* ,**307**,91 ,R Edelson ,S Vaughan ,R Warwick ,E Puchnarewicz ,I George
- 29) ” Physical parameters of GRB 970508 from its afterglow synchrotron emission ” ,1999, *AASS* ,**138**,451 ,T J Galama ,R A M J Wijers ,P M Vreeswijk ,P J Groot ,J Van Paradijs ,C Kouveliotou ,C Robinson ,M Bremer ,R G Strom ,N Tanvir
- 30) ” Stellar populations and ages of M82 super star clusters” ,1999, *MNRAS* ,**304**,540 ,J S Gallagher ,L J Smith
- 31) ” Spectroscopic atlas of the central 24” \times 20” of the seyfert 2 galaxy NGC 1068 ” ,1999, *ApJ* ,**518**,190 ,B García-Lor ,E Mediavilla ,S Arribas
- 32) ” The pattern speed of the bar in NGC 4596 ” ,1999, *MNRAS* ,**306**,926 ,J Gerssen ,K Kuijken ,M R Merrifield
- 33) ” Disc loss and renewal in A0535+26 ” ,1999, *MNRAS* ,**310**,L21 ,N J Haigh ,M J Coe ,I A Steele ,J Fabregat
- 34) ” The emission-line pulse pattern in the intermediate polar RX J0558+53 ” ,1999, *MNRAS* ,**305**,437 ,E T Harlaftis ,K Horne
- 35) ” Gravitational lensing statistics with extragalactic surveys III Joint constraints on λ_0 and Ω_0 from lensing statistics and the $m-z$ relation for type Ia supernovae ” ,1999, *AA* ,**350**,1 ,P Helbig
- 36) ” The distribution of Heavy Elements in Spiral Elliptical Galaxies ” ,1999, *PASP* ,**111**,919 ,R B C Henry ,G Worthey
- 37) ” Far-ultraviolet space telescope imaging spectrograph spectra of the white dwarf rej 1032+532 II Stellar spectrum ” ,1999, *ApJ* ,**517**,850 ,J B Holberg ,M A Barstow ,F C Bruhweiler ,I Hubeny ,E M Green

- 38) " Infrared photometry of low-mass stars in Praesepe " ,1999, *MNRAS* ,**310**,87 ,S T Hodgkin ,D J Pinfield ,R F Jameson ,I A Steele ,M R Cossburn ,N C Hambly
- 39) " The X-ray transient XTE J2012+381 " ,1999, *MNRAS* ,**305**,L49 ,R I Hynes ,P Roche ,P A Charles ,M J Coe
- 40) " The Yellow hypergiants HR 8752 and ρ cassiopeiae near The evolutionary border of instability " ,1999, *ApJ* ,**523**,L145 ,G Isrealian ,A Lobel ,M R Schmidt
- 41) " Two little blazars " ,1999, *MNRAS* ,**309**,153 ,N Jackson ,M Marchã
- 42) " On the origin of damped Ly α systems: A case for low surface brightness galaxies? " ,1999, *ApJ* ,**514**,L83 ,R Jimenez ,D V Bowen ,F Matteucci
- 43) " Fabry-Perot observations of the ionized gas in NGC 3938 " ,1999, *AA* ,**342**,417 ,J Jiménez-Vice,E Battaner ,M Rozas ,H Castañeda ,C Porcel
- 44) " Measuring the dark matter scale of local group dwarf spheroidals" ,1999, *AJ* ,**117**,1275 ,J Kleyna ,M Geller ,S Kenyon ,M Kurtz
- 45) " The EC 14026 stars - XII PG 1219+534, PG 0911+456: successes and new challenges for the Fe driving mechanism " ,1999, *MNRAS* ,**305**,28 ,C Koen ,D O'Donoghue ,D L Pollacco ,S Charpinet
- 46) " A complete sample of radio sources in the North Ecliptic Cap, selected at 38 MHz - III Further imaging observations and the photometric properties of the sample " ,1999, *MNRAS* ,**308**,1087 ,M Lacy ,M E Kaiser ,G J Hill ,S Rawlings ,G Leyshon
- 47) " Optical spectroscopy of two overlapping, flux-density-limited samples of radio sources in the North Ecliptic Cap, selected at 38 and 151 MHz " ,1999, *MNRAS* ,**308**,1096 ,M Lacy ,S Rawlings ,G J Hill ,A J Bunker ,S E Ridgway ,D Stern
- 48) " Radio-optical alignments in a low radio luminosity sample " ,1999, *MNRAS* ,**307**,420 ,M Lacy ,S E Ridgway ,M Wold ,P B Lilje ,S Rawlings
- 49) " The QDOT all-sky IRAS galaxy redshift survey " ,1999, *MNRAS* ,**308**,897 ,A Lawrence ,M Rowan-Robinson,R S Ellis ,C S Frenk ,G Efstathiou ,N Kaiser ,W Saunders ,I R Parry ,X Xiaoyang ,J Crawford
- 50) " High-velocity interstellar clouds towards the M 15 globular cluster " ,1999, *AASS* ,**134**,257 ,N Lehner ,W R J Rolleston ,R S I Ryans ,F P Keenan ,B Bates ,D L Pollaco ,K R Sembach
- 51) " Optical observations of three Galactic halo stars: evidence for cloudlets inintermediate and hig-velocity interstellar clouds " ,1999, *AA* ,**352**,257 ,N Lehner ,K R Sembach ,D L Lambert ,R S I Ryans ,F P Keenan
- 52) " A Younger age for the Universe " ,1999, *Science* ,**284**,1503 ,C H Lineweaver

- 53) "Optical and X-ray variability in the least luminous active galactic nucleus, NGC 4395" ,1999, *MNRAS* ,**305**,109 ,P Lira ,A Lawrence ,P O'Brien ,R A Johnson ,R Terlevich ,N Bannister
- 54) "Doppler imaging of BD+22°4409 (Lo Peg) using least-squares deconvolution" ,1999, *MNRAS* ,**307**,685 ,T A Lister ,A C Cameron ,J Bartus
- 55) "Faint galaxies in semi-analytic models: how robust are the predictions?" ,1999, *AA* ,**345**,712 ,C Lobo ,B Guiderdoni
- 56) "Photoionization models of the NGC 2363 and their implications for the ionizing star cluster" ,1999, *ApJ* ,**527**,110 ,V Luridiana ,M Peimbert ,C Leitherer
- 57) "Metallicity distribution of bulge planetary nebulae and the [O/Fe]×[Fe/H] relation" ,1999, *AA* ,**351**,L49 ,W J Maciel
- 58) "Kinematical analysis of the ionized gas in the nuclear region of NGC 4214" ,1999, *AA* ,**343**,64 ,J Maíz-Apell ,C Muñoz-Tuño ,G Tenorio-Tagle ,J M Mas-Hesse
- 59) "M4-18: the planetary nebula and its WC10 central star" ,1999, *MNRAS* ,**306**,931 ,O De Marco ,P A Crowther
- 60) "Class B1555+375: A new four-image gravitational lens system" ,1999, *AJ* ,**118**,654 ,D R Marlow ,S T Myers ,D Rusin ,N Jackson ,I W A Browne ,P N Wilkinson ,T Muxlow ,C D Fassnacht ,L Lubin ,T Kundić ,R D Blandford ,T J Pearson ,A C S Readhead ,L Koopmans ,A G de Bruyn
- 61) "Utrecht Echelle Spectroscopy of flare in VB 8" ,1999, *MNRAS* ,**302**,59 ,E L Martin
- 62) "The star formation history of the local group dwarf elliptical galaxy NGC 1811: Gradients in the stellar population" ,1999, *AJ* ,**118**,2229 ,D Martínez-Delgado ,A Aparicio ,C Gallart
- 63) "Broad-band spectral evolution of GRB afterglows" ,1999, *AASS* ,**138**,453 ,N Masetti ,E Pian ,E Palazzi ,L Amati ,T J Galama ,L Nicastro ,P M Vreeswijk ,F Frontera ,J van Paradijs
- 64) "Hidden bars and boxy bulges" ,1999, *AA* ,**345**,L47 ,M R Merrifield ,K Kuijken
- 65) "Elliptical galaxy dynamics" ,1999, *PASP* ,**111**,129 ,D Merritt
- 66) "Gamma-ray burst afterglows and their implications" ,1999, *AASS* ,**138**,533 ,P Mészáros
- 67) "Comparison of the redshift evolution of dLy α absorbers with predictions from models for viscous evolution of the Galactic disk" ,1999, *AA* ,**351**,841 ,H Meusinger ,R Thon
- 68) "Multiwavelength imaging and long-slit spectroscopy of the planetary nebula NGC 6884: The discovery of a fast precessing, bipolar collimated outflow" ,1999, *AJ* ,**117**,1421 ,L F Miranda ,M A Guerrero ,J M Torrelles

- 69) ” X-ray spectra of the RIXOS source sample ” ,1999, *MNRAS* ,**308**,233 ,J P D Mittaz ,F J Carrera ,E Romero-Colmene,K O Mason ,G Hasinger ,R McMahon ,H Andernach ,R Bower ,J Burgos-Martin ,J I González-Serrano,D Wonnacott
- 70) ” Optical and ultraviolet observations of a strong flare in the young, single K2 dwarf LQ Hya ” ,1999, *MNRAS* ,**305**,45 ,D Montes ,S H Saar ,A C Cameron ,Y C Unruh
- 71) ” Hubble Space Telescope faint object spectrograph observations of a unique grouping of five QSOs: The sizes and shapes of low- z Ly α forest absorbers ” ,1999, *ApJ* ,**522**,627 ,E M Monier ,D A Turnshek ,C Hazard
- 72) ” The orbital parameters of three new subdwarf B binaries” ,1999, *MNRAS* ,**304**,535 ,C Moran ,P Maxted ,T R Marsh ,R A Saffer ,M Livio
- 73) ” A comparison of the structure of the aerosol layers in the great red spot of Jupiter and its surroundings before and after the 1993 SEB disturbance ” ,1999, *AA* ,**344**,355 ,O Muñoz ,F Moreno ,A Molina ,J L Ortiz
- 74) ” Spectral classification of the cool giants in symbiotic systems ” ,1999, *AASS* ,**137**,473 ,U Mürset ,H M Schmid
- 75) ” Probing the evolution of early-type galaxies using multicolor number counts and red-shift distributions ” ,1999, *MNRAS* ,**309**,L25 ,F Nakata ,K Shimasaku ,M Doi ,N Kashikawa ,W Kawasaki ,Y Komiyama ,S Okamura ,M Sekiguchi ,M Yagi ,N Yasuda
- 76) ” The Be/X-ray transient V0332+53: evidence for a tilt between the orbit and equatorial planet? ” ,1999, *MNRAS* ,**307**,695 ,I Negueruela ,P Roche ,J Fabregat ,M J Coe
- 77) ” H α spectropolarimetry of Be[e] and Herbig Be stars ” ,1999, *MNRAS* ,**305**,166 ,R D Oudmaijer ,J E Drew
- 78) ” Cosmic histories of stars, gas, heavy elements, and dust in galaxies ” ,1999, *ApJ* ,**522**,604 ,Y C Pei ,S M Fall ,M G Hauser
- 79) ” A subarcsecond-resolution near-infrared study of Seyfert and ”Normal” galaxiesI Imaging data ” ,1999, *ApJS* ,**125**,363 ,R F Peletier ,J H Knapen ,I Shlosman ,D Pérez-Ram´ D Nadeau ,R Doyon ,J M Rodríguez,A M Pérez
- 80) ” Two-dimensional line-strength maps in three well-studied early-type galaxies ” ,1999, *MNRAS* ,**310**,863 ,R F Peletier ,A Vazdekis ,S Arribas ,C del Burgo ,B García-Lorenzo,C Gutierrez ,E Mediavilla ,F Prada
- 81) ” Two multiple-imaged $z = 405$ galaxies in the cluster-lens Abell 2390 ” ,1999, *AA* ,**346**,359 ,R Pelló ,J P Kneib ,J F Le Borgne ,J Bézecourt ,T M Ebbels ,I Tijera ,G Bruzual ,J M Miralles ,I Smail ,G Soucail ,T J Bridges
- 82) ” The iron abundance in four planetary nebulae ” ,1999, *AA* ,**347**,967 ,M Perinotto ,C G Bencini ,A Pasquali ,A Manchado ,J M Rodríguez,R Stanga

- 83) " Optical STJ observations of the Crab Pulsar " ,1999, *AA* ,**346**,L30 ,M A C Perryman ,F Favata ,A Peacock ,N Rando ,B G Taylos
- 84) " Metal abundances at $z < 1.5$: Fresh clues to the chemical enrichment history of damped Ly-alpha systems " ,1999, *ApJ* ,**510**,576 ,M Pettini ,S L Ellison ,C S Steidel ,D V Bowen
- 85) " The star formation histories of galaxies in distant clusters " ,1999, *ApJ* ,**518**,576 ,B M Poggianti ,I Smail ,A Dressler ,W J Couch ,A J Barger ,H Butcher ,R S Ellis ,A Oemler Jr
- 86) " The planetary nebula surrounding the final thermal pulse object V4334 Sagittarii " ,1999, *MNRAS* ,**304**,127 ,D Pollacco
- 87) " On star formation and chemical evolution in the Galactic disc " ,1999, *AA* ,**350**,827 ,L Portinari ,C Chiosi
- 88) " Measurements of Ω and Λ from 42 high-redshift supernovae " ,1999, *ApJ* ,**517**,565 ,S Perlmutter , et al
- 89) " A counterrotating central component in the barred galaxy NGC 5728 " ,1999, *ApJ* ,**517**,123 ,F Prada ,C M Cutiérrez
- 90) " The study of the A type IIb supernova: SN 1996cb " ,1999, *AJ* ,**117**,736 ,Y Qiu ,W Li ,Q Qiao ,J Hu
- 91) " GRB 970228 revisited: Evidence for a supernova in the light curve and late spectral energy distribution of the afterglow " ,1999, *ApJ* ,**521**,L111 ,D E Reichart
- 92) " The spite lithium plateau: Ultrathin but postprimordial " ,1999, *ApJ* ,**523**,654 ,S G Ryan ,J E Norris ,T C Beers
- 93) " High-resolution stellar and interstellar spectra of HD 100340 " ,1999, *MNRAS* ,**304**,947 ,R S I Ryans ,F P Keenan ,W R J Rolleston ,K R Sembach ,R D Davies
- 94) " Discovery of a high-speed outflow in 4C 74 26 " ,1999, *MNRAS* ,**305**,97 ,A Robinson ,E A Corbett ,D J Axon ,S Young
- 95) " Early-type stars in the Galactic halo from the Palomar-Green Survey II A sample of distant, apparently young Population I stars " ,1999, *AA* ,**347**,69 ,W R J Rolleston ,N C Hambly ,F P Keenan ,D L Dufton ,R A Saffer
- 96) " The kinematics of HH 399 jet in the Trifid nebula " ,1999, *AJ* ,**118**,2962 ,M Rosado ,C Esteban ,B Lefloch ,J Cernicharo ,R J García L
- 97) " Global properties of the population of HII regions in NGC 7479 from photometric H_α imaging " ,1999, *AASS* ,**135**,145 ,M Rozas ,A Zurita ,C H Heller ,J E Beckman
- 98) " ORFEUS spectroscopy of the O VI lines in symbiotic stars and the Raman scattering process " ,1999, *AA* ,**345**,950 ,H M Schmid ,J Krautter ,I Appenzeller ,J Barnstedt ,T Dumm

- ,A Fromm ,M Gölz ,M Grewing ,W Gringel ,C Haas ,W Hopfensitz ,N Kappelmann ,G Krämer ,A Lindenberger ,H Mandel ,U Mürset ,H Schild ,W Schumutz ,H Widmann
- 99) ” NGC 7331: The Galaxy with the multicomponent central region ” ,1999, *AJ* ,**118**,186 ,O K Sil’chenko
- 100) ” Optical spectroscopy of faint gigahertz peaked-spectrum sources ” ,1999, *MNRAS* ,**307**,149 ,I A G Snellen ,R T Schilizzi ,M N Bremer ,G K Miley ,A G de Bruyn ,H J A Röttgeri
- 101) ” Young stellar nuclei in the lenticular galaxies I NGC 1023 and NGC 7332 ” ,1999, *AJ* ,**117**,2725 ,O K Sil’chenko
- 102) ” Lyman-break galaxies at $z \geq 4$ and the evolution of the ultraviolet luminisdensity at high redshift ” ,1999, *ApJ* ,**519**,1 ,C C Steidel ,K L Adelberger ,M Giavalisco ,M Dickinson ,M Pettini
- 103) ” The angular diameter of the mira variable R Leonis at 3.36 and 2.2 microns ” ,1999, *AJ* ,**117**,1857 ,A Tej ,T Chandrasekhar ,N M Ashok ,S Ragland ,A Richichi ,B Stecklum
- 104) ” A near-infrared spectrometer optimized for an adaptive optics system ” ,1999, *MNRAS* ,**303**,15 ,K L Thompson
- 105) ” The properties of field elliptical galaxies at intermediate redshfit - I Empirical scaling laws ” ,1999, *MNRAS* ,**308**,1037 ,T Treu ,M Stiavelli ,S Casertano ,P Moller ,G Bertin
- 106) ” Imaging of the shell galaxies NGC 474 and 7600, and implications for their formation ” ,1999, *MNRAS* ,**307**,967 ,A J Turnbull ,T J Bridges ,D Carter
- 107) ” Surface imaging of long-period variable stars ” ,1999, *MNRAS* ,**306**,353 ,P G Tuthill ,C A Haniff ,J E Baldwin
- 108) ” Optical spectroscopy of X-ray sources in the old open cluster M67 ” ,1999, *AA* ,**347**,866 ,M van den Berg ,F Verbunt ,R D Mathieu
- 109) ” A confirmed location in the Galactic halo for the high-velocity cloud ’chain A’ ” ,1999, *Nature* ,**400**,138 ,H van Woerden ,U J Schwarz ,R F Peletier ,B P Wakker ,P M W Kalberla
- 110) ” A robust age indicator for old stellar populations ” ,1999, *ApJ* ,**525**,144 ,A Vazdekis ,N Arimoto
- 111) ” The peculiar motions of early-type galaxies in two distant regions - II The spectroscopic data ” ,1999, *MNRAS* ,**305**,259 ,G Wegner ,M Colless ,R P Saglia ,R K McMahan Jr ,R L Davies ,D Burstein ,G Baggley
- 112) ” Closing in on Ω_m : The amplitude of mass fluctuations from galaxy clusters and the $ly\alpha$ forest ” ,1999, *ApJ* ,**522**,563 ,D H Weinberg ,R A C Croft ,L Hernquist ,N Katz ,M Pettini
- 113) ” Physical parameters of GRB 970508 and GRB 971214 from their afterglow synchrotron emission ” ,1999, *ApJ* ,**523**,177 ,R A M J Wijers ,T J Galama

- 114) ” Mapping the gas kinematics and ionization structure of four ultraluminous IRAS galaxies ” ,1999, *MNRAS* ,**309**,229 ,R J Wilman ,C S Crawford ,R G Abraham
- 115) ” The seeing at the William Herschel Telescope ” ,1999, *MNRAS* ,**309**,379 ,R W Wilson ,N O’Mahony ,C Packham ,M Azzaro
- 116) ” A measurement of the transverse velocity of Q2237+0305 ” ,1999, *MNRAS* ,**309**,261 ,J S B Wyithe ,R L Webster ,E L Turner
- 117) ” The nature of the diffuse clumps and the X-ray companion of Markarian 273 ” ,1999, *ApJ* ,**524**,746 ,X Y Xia ,S Mao ,H Wu ,X -W Liu ,Y Gao ,Z -G Deng ,Z -L Zou
- 118) ” Radio-loud and radio-quiet active galactic nuclei ” ,1999, *AJ* ,**118**,1169 ,C Xu ,M Livio ,S Baum
- 119) ” Evidence for a positive cosmological constant from flows of galaxies and distant supernovae ” ,1999, *Nature* ,**401**,252 ,I Zehavi ,A Dekel

INT

Published papers, using INT data, in the above refereed journals, 1999

- 1) ” Time-resolved spectroscopy of the RS canum venaticorum short-period systems RT andromedae, WY Cancri, and XY ursae majoris ” ,1999, *AJ* ,**118**,1015 ,M J Arévalo ,C Lázaro
- 2) ” Hubble space telescope view of the heart of Ursa Minor ” ,1999, *AJ* ,**117**,1764 ,P Battinelli ,S Demers
- 3) ” Estimation of stellar metal abundance II A recalibration of the Ca II K technique, and the autocorrelation function method ” ,1999, *AJ* ,**117**,981 ,T C Beers ,S Rossi ,J E Norris ,S G Ryan ,T Shefler
- 4) ” A search for very low mass stars and brown dwarfs in the young σ oriocluster ” ,1999, *ApJ* ,**521**,671 ,V J S Béjar ,M R Zapatero Oso ,R Rebolo
- 5) ” The kinematics of the bulge and the disc of NGC 7331 ” ,1999, *AA* ,**348**,77 ,R Bottema
- 6) ” Quantitative near-infrared spectroscopy of Of and WNL stars ” ,1999, *ApJ* ,**511**,374 ,B Bohannan ,P A Crowther
- 7) ” Kinematics, abundances and origin of brightest cluster galaxies ” ,1999, *MNRAS* ,**307**,131 ,D Carter ,T J Bridges ,G K T Hau
- 8) ” Short-term spectroscopic variability in the pre-main sequence Herbig Ae star AB Aurigae during the MUSICOS 96 campaign ” ,1999, *AA* ,**345**,884 ,C Catala ,J F Donati ,T Böhm ,J Landstreet ,H F Henrichs ,Y Unruh ,J Hao ,A C Cameron ,C M Johns-Krull ,L Kaper ,T Simon ,B H Foing ,H Cao ,P Ehrenfreund ,A P Hatzes ,L Huang ,J A de Jong ,E J Kennelly ,E ten

Kulve ,C L Mullis ,J E Neff ,J M Oliveira ,C Schrijvers ,H C Stempels ,J H Telting ,N Walton ,D Yang

9) " Light curves of the trans-Neptunian objects 1996 TP66 and 1994 VK8 " ,1999, *MNRAS* ,**308** ,588 ,S J Collander-Br,A Fitzsimmons ,E Fletcher ,M J Irwin ,I P Williams

10) " 1- μ m spectroscopy of normal OB stars " ,1999, *MNRAS* ,**302**,145 ,P S Conti ,I D Howarth

11) " Is LkH $_{\alpha}$ 264 like a young, extremely active Sun? " ,1999, *MNRAS* ,**307**" ,L23 ,V M Costa ,J F Gameiro ,M T V T Lago

12) " The ROSAT Brightest Cluster Sample - III Optical spectra of the central clusgalaxies " ,1999, *MNRAS* ,**306**,857 ,C S Crawford ,S W Allen ,H Ebeling ,A C Edge ,A C Fabian

13) " Wolf-Rayet nebulae as tracers of stellar ionizing fluxes I M1-67 " ,1999, *AA* ,**350** ,1007 ,P A Crowther ,A Pasquali ,O De Marco ,W Schmutz ,D J Hillier ,A de Koter

14) " A burst of outflows from the Serpens cloud core: Wide-field submillimetre continuum, CO $J=2-1$ and optical observations " ,1999, *MNRAS* ,**309**,141 ,C J Davis ,H E Matthews ,T P Ray ,W R F Dent ,J S Richer

15) " The ROSAT wide field camera extragalactic survey " ,1999, *MNRAS* ,**307**,91 ,R Edelson ,s Vaughan ,R Warwick ,E Puchnarewicz ,I George

16) " Variability of extreme $z=4.72$ blazar, GB 1428+4217 " ,1999, *MNRAS* ,**308** ,L6 ,A C Fabian ,A Celotti ,G Pooley ,K Iwasawa ,W N Brant ,R G McMahon ,M D Hoenig

17) " The Hubble Space Telescope key project on the extragalactic distance scale XVII The Cepheid distance to NGC 4725 " ,1999, *ApJ* ,**512**,48 ,B K Gibson ,S M G Hughes ,P B Stetson ,W L Freedman ,R C Kennicutt Jr,J R Mould ,F Bresolin ,L Ferrarese ,H C Ford ,J A Graham ,M Han ,P Harding ,J G Hoessel ,J P Huchra ,G D Illingworth ,D D Kelson ,L M Macri ,B F Madore ,R L Phelps ,C F Prosser ,A Saha ,S Sakai ,K M Sebo ,N A Silbermann ,A M Turner

18) " Global velocity field and bubbles in the blue compact dwarf galaxy Mrk86 " ,1999, *MNRAS* ,**306**,975 ,A Gil de Paz ,J Zamorano ,J Gallego

19) " The influence of the Bulge profiles shapes on claims for a scale-free hubblesequence for spiral galaxies " ,1999, *ApJ* ,**524** ,L23 ,A W Graham ,M Prieto

20) " Stars, H $_{II}$ regions, and shocked gas in the bar of NGC 1530 " ,1999, *AA* ,**348** 394 ,A Greve ,D Reynaud ,D Downes

21) " Lithium abundances in metal-poor stars " ,1999, *AASS* ,**137**,93 ,C M Gutiérrez ,R J García ,R Rebolo ,E L Martín ,P Francois

22) " Disc loss and renewal in A0535+26 " ,1999, *MNRAS* ,**310**,L21 ,N J Haigh ,M J Coe ,I A Steele ,J Fabregat

- 23) ” Brown dwarfs in the Pleiades and the initial mass function across the stellar/substellar boundary ” ,1999, *MNRAS* ,**303**,835 ,N C Hambly ,S T Hodgkin ,M R Cossburn ,R F Jameson
- 24) ” Discovery of metal line emission from the Red star in IP Peg during outburst maximum ” ,1999, *AA* ,**346**,L73 ,H Harlaftis
- 25) ” Spiral shocks in the accretion disc of PI Peg during outburst maximum ” ,1999, *MNRAS* ,**306**,348 ,E T Harlaftis ,D Steeghs ,K Horne ,E Martín ,A Magazzú
- 26) ” Gravitational lensing statistics with extragalactic surveys III Joint constraints on λ_0 and Ω_0 from lensing statistics and the $m-z$ relation for type Ia supernovae ” ,1999, *AA* ,**350**,1 ,P Helbig
- 27) ” Fundamental parameters of galactic luminous OB stars III Spectroscopic analysis of O stars in Cygnus OB2 ” ,1999, *AA* ,**348** ,542 ,A Herrero ,L J Corral ,M R Villamariz ,E L Martín
- 28) ” A large-scale bulk flow of galaxy clusters ” ,1999, *ApJ* ,**512**,L79 ,M J Hudson ,R J Smith ,J R Lucey ,D J Schelegel ,R L Davies
- 29) ” On the influence of the environment in the star formation rates of a sample of galaxies in nearby compact groups ” ,1999, *ApJ* ,**518**,94 ,J Iglesias-Pár,J M Vílchez
- 30) ” Lithium in the low-mass stars of the Coma Berenices open cluster ” ,1999, *MNRAS* ,**304**,821 ,R D Jeffries
- 31) ” On the lithium abundance dispersion in late-type Pleiades stars ” ,1999, *MNRAS* ,**309**,189 ,R D Jeffries
- 32) ” The wind momentum-luminosity relationship of galactic A- and B-supergiants ” ,1999, *AA* ,**350** ,970 ,R P Kudritzki ,J Puls ,D J Lennon ,K A Venn ,J Reetz ,F Najarro ,J K McCarthy ,A Herrero
- 33) ” The ionization in the winds of O stars and the determination of mass-loss rates from ultraviolet lines ” ,1999, *ApJ* ,**516**,872 ,H J G L M Lamers,S Haser ,A de Koter ,C Leitherer
- 34) ” The QDOT all-sky IRAS galaxy redshift survey ” ,1999, *MNRAS* ,**308** ,897 ,A Lawrence ,M Rowan-Robinson,R S Ellis ,C S Frenk ,G Efstathiou ,N Kaiser ,W Saunders ,I R Parry ,X Xiaoyang ,J Crawford
- 35) ” A Younger age for the Universe ” ,1999, *Science* ,**284**,1503 ,C H Lineweaver
- 36) ” A major star formation region in the receding tip of the stellar galactic bar II Supplementary information and evidence that the bar is not the same structure as the triaxial bulge previously reported ” ,1999, *AJ* ,**118**,381 ,M López-Corred,F Garzón ,J E Beckman ,T J Mahoney ,P L Hammersley ,X Calbet

- 37) " The circumstellar environment of IRAS 05327+3404 " ,1999, *AA* ,**346**,441 ,E A Magnier ,L B F M Waters ,P J Groot ,M E van den Anck,Y J Kuan ,E L Martín
- 38) " M4-18: the planetary nebula and its WC10 central star " ,1999, *MNRAS* ,**306**,931 ,O De Marco ,P A Crowther
- 39) " Effects of the interaction on the properties of spiral galaxies II Isolated galaxies: The zero point " ,1999, *AA* ,**344**,421 ,I Márquez ,M Moles
- 40) " Kinematics of the helium accretor GP com " ,1999, *MNRAS* ,**304**,443 ,T R Marsh
- 41) " On the evolutionary status of X-ray selected weak-line T Tauri star candidates in Taurus-Auriga " ,1999, *AA* ,**342**,173 ,E L Martín ,A Magazzú
- 42) " A comprehensive study of the intense star formation bursts in irregular and compact galaxies " ,1999, *AA* ,**349** ,765 ,J M Mas-Hesse ,D Kunth
- 43) " Gamma-ray burst afterglows and their implications " ,1999, *AASS* ,**138** ,533 ,P Mészáros
- 44) " X-ray spectra of the RIXOS source sample " ,1999, *MNRAS* ,**308** ,233 ,J P D Mittaz ,F J Carrera ,E Romero-Colmene,K O Mason ,G Hasinger ,R McMahon ,H Andernach ,R Bower ,J Burgos-Martin ,J I González-Serrano,D Wonnacott
- 45) " Optical and infrared observations of the Centaur 1997 CU₂₆ " ,1999, *MNRAS* ,**306**,799 ,N McBride ,J K Davies ,S F Green ,M J Foster
- 46) " Imaging and spectrophotometry of markarian 1094: Implications for the recent star formation " ,1999, *AJ* ,**117**,1688 ,D I Mendez ,L M Cairos ,C Esteban ,J M Vilchez
- 47) " Self-consistent model of the dusty torus around HL tauri " ,1999, *ApJ* ,**519**,257 ,A B Men'shchiko,T Henning ,O Fischer
- 48) " Solving the kilosecond quasi-periodic oscillation problem of the intermediate polar GK Persei " ,1999, *MNRAS* ,**306**,753 ,L Morales-Rueda ,M D Still ,P Roche
- 49) " The orbital parameters of three new subdwarf B binaries " ,1999, *MNRAS* ,**304**,535 ,C Moran ,P Maxted ,T R Marsh ,R A Saffer ,M Livio
- 50) " ROSAT observations of Cepheus OB3: the discovery of low-mass stars " ,1999, *MNRAS* ,**302**,714 ,T Naylor ,A C Fabian
- 51) " The Be/X-ray transient V0332+53: evidence for a tilt between the orbit and tequatorial plane? " ,1999, *MNRAS* ,**307** ,695 ,I Negueruela ,P Roche ,ΦJ Fabregat ,M J Coe
- 52) " Circumstellar emission and flares on FK Comae Berenices " ,1999, *AA* ,**343**,213 ,J M Oliveira ,B H Foing
- 53) " Measurements of Ω and Λ from 42 high-redshift supernovae " ,1999, *ApJ* ,**517**,565 ,S Perlmutter , et al

- 54) ” The planetary nebula surrounding the final thermal pulse object V4334 Sagittarii ” ,1999, *MNRAS* ,**304**,127 ,D Pollacco
- 55) ” The study of the A type IIb supernova: SN 1996cb ” ,1999, *AJ* ,**117**,736 ,Y Qiu ,W Li ,Q Qiao ,J Hu
- 56) ” GRB 970228 revisited: Evidence for a supernova in the light curve and late spectral energy distribution of the afterglow ” ,1999, *ApJ* ,**521**,L111 ,D E Reichart
- 57) ” The nature of arms in spiral galaxies IV Symmetries and asymmetries ” ,1999, *AASS* ,**134**,333 ,M S del R  o ,J Cepa
- 58) ” The angular correlation function and hierarchical moments of ~ 70000 faint galaxies to $R=23.5$ ” ,1999, *MNRAS* ,**307** ,703 ,N Roche ,S A Eales
- 59) ” Fluorescence of [FeII] in HII regions ” ,1999, *AA* ,**348**,222 ,M Rodr  guez
- 60) ” The Mpc-scale radio-source associated with the GPS galaxy B1144+352 ” ,1999, *AA* ,**341**,44 ,A P Schoenmakers,A G de Bruyn ,H J A R  ttger,H van der Laan
- 61) ” A comparison of the PSCz and Stromlo-APM redshift surveys , ” ,1999, *MNRAS* ,**309**,89 ,M D Seaborne ,W Shuterland ,H Tadros ,G Efstathiou ,C S Frenk ,O Keeble ,S Maddox ,R G McMahon ,S Oliver ,M Rowan-Robinson,W Saunders ,S D M White
- 62) ” Optical and infrared observations of the luminous quasar PDS 456: a radio-quiet analogue of 3C 273? ” ,1999, *MNRAS* ,**303**,L23 ,C Simpson ,M Ward ,P O’Brien ,J Reeves
- 63) ” Rapid variations of T Tauri spectral features: clues to the morphology of the inner regions ” ,1999, *MNRAS* ,**304**,367 ,K W Smith ,G F Lewis ,I A Bonnell ,P S Bunclark ,J P Emerson
- 64) ” Optical spectroscopy of faint gigahertz peaked-spectrum sources ” ,1999, *MNRAS* ,**307**,149 ,I A G Snellen ,R T Schilizzi ,M N Bremer ,G K Miley ,A G de Bruyn ,H J A R  ttgeri
- 65) ” A representative sample of Be stars ” ,1999, *AASS* ,**137**,147 ,I A Steele ,I Negueruela ,J S Clark
- 66) ” Infrared line-profile variability in Wolf-Rayet binary systems ” ,1999, *MNRAS* ,**302**,549 ,I R Stevens ,I D Howarth
- 67) ” The Cepheid distance to M96 and the Hubble constant ” ,1999, *MNRAS* ,**310**,175 ,N R Tanvir ,H C Ferguson ,T Shanks
- 68) ” The properties of field elliptical galaxies at intermediate redshift - I Empirical scaling laws ” ,1999, *MNRAS* ,**308** ,1037 ,T Treu ,M Stiavelli ,S Casertano ,P Moller ,G Bertin
- 69) ” Understanding A-type supergiants I Ultraviolet and visible spectral atlas of A-type supergiants ” ,1999, *AASS* ,**137**,351 ,E Verdugo ,A Talavera ,A I G  mez

- 70) " Understanding A-type supergiants II Atmospheric parameters and rotational velocities of Galactic A-type supergiants " ,1999, *AA* ,**346**,819 ,E Verdugo ,A Talavera ,A I Gómez
- 71) " Collisional baryonic dark matter haloes " ,1999, *MNRAS* ,**308** ,551 ,M A Walker
- 72) " Central masses and broad-line region of active galactic nuclei I Comparing the photoionization and reverberation techniques " ,1999, *ApJ* ,**526**,579 ,A Wandel ,B M Peterson ,M A Malkan
- 73) " The peculiar motions of early-type galaxies in two distant regions - II The spectroscopic data " ,1999, *MNRAS* ,**305**,259 ,G Wegner ,M Colless ,R P Saglia ,R K McMahan Jr ,R L Davies ,D Burstein ,G Baggley
- 74) " A new local group galaxy in cetus " ,1999, *AJ* ,**118**,2767 ,A B Whiting ,G K T Hau ,M Irwing
- 75) " LOTIS search for early-type optical afterglows: GRB 971227 " ,1999, *ApJ* ,**519**,L25 ,G G Williams ,H S Park ,E Ables ,D L Band ,S D Barthelmy ,R Bionta ,P S Butterworth ,T L Cline ,D H Ferguson ,G J Fishman ,N Gehrels ,D H Hartmann ,K Hurley ,C Kouveliotou ,C A Meegan ,L Ott ,E Parker ,R Porrota
- 76) " Hubble Space Telescope faint object camera spectroscopy of the narrow-line region of the NGC 4151 I Gas kinematics " ,1999, *ApJ* ,**519**,134 ,C Winge ,D J Axon ,F D Macchetto ,A Capetti ,A Marconi
- 77) " Spectroscopic observations of post-common envelope binaries " ,1999, *MNRAS* ,**304**,335 ,J H Wood ,S Harmer ,J J Lockley
- 78) " Radio-loud and radio-quiet active galactic nuclei " ,1999, *AJ* ,**118** ,1169 ,C Xu ,M Livio ,S Baum
- 79) " On the nature of the H I infrared emission lines of τ Scorpii " ,1999, *AA* ,**349** ,573 ,P A Zaal ,A de Koter ,L B F M Waters ,J M Marlborough ,T R Geballe ,J M Oliveira ,B H Foing
- 80) " Brown dwarfs in the Pleiades cluster " ,1999, *AASS* ,**134**,537 ,M R Zapatero ,R Rebolo ,E L Martín ,S T Hodgkin ,M R Cossburn ,A Magazzù ,I A Steele ,R F Jameson
- 81) " Evidence for a positive cosmological constant from flows of galaxies and distant supernovae " ,1999, *Nature* ,**401** ,252 ,I Zehavi ,A Dekel

JKT

Published papers, using JKT data, in the above refereed journals, 1999

- 1) " Global structure and kinematics of the spiral galaxy NGC 2841 " ,1999, *AJ* ,**117**,1725 ,V L Afanasiev ,O K Sil'chenko

- 2)" Dust outflows from starburst galaxies " ,1999, *AA* ,**343**,51 ,P B Alton ,J I Davies ,S Bianchi
- 3)" Optical and infrared modulation in the Be-star/X-ray source LSI+61°303 " ,1999, *AA* ,**348**,843 ,K M V Apparao
- 4)" On the nature of XTE J0421+560/CI Camelopardalis " ,1999, *ApJ* ,**527**,345 ,T Belloni ,S Dieters ,M E Van den Anck,R P Fender ,D W Fox ,B A Harmon ,M Van der Klis ,J M Kommers ,W H G Lewin ,J Van Paradijs
- 5)" A search for candidate light echoes: Photometry of supernova environments " ,1999, *AASS* ,**138**,253 ,F R Boffi ,W B Sparks ,F D Macchetto
- 6)" The shape of the blue/UV continuum of the B3-VLA radio quasars: dependence on redshift, blue/UV luminosity and radio power " ,1999, *MNRAS* ,**306**,137 ,R Carballo ,J I González-S,C R Benn ,S F Sánchez ,M Vigotti
- 7)" Alignments of the dominant galaxies in poor clusters " ,1999, *ApJ* ,**519**,22 ,T M Fuller ,M J West ,T J Bridges
- 8)" The effect of magnetic fields on γ -ray burst inferred from multi- wavelength observations of the burst of 23 January 1999 " ,1999, *Nature* ,**398**,394 ,T J Galama , et al
- 9)" Testing convection theories using Balmer line profiles of A,F, and G stars " ,1999, *AA* ,**347**,876 ,R B Gardier ,F Kupka ,B Smalley
- 10)" Global velocity field and bubbles in the blue compact dwarf galaxy Mrk86 " ,1999, *MNRAS* ,**306**,975 ,A Gil de Paz ,J Zamorano ,J Gallego
- 11)" Early detection of the optical counterpart to GRB 980329 " ,1999, *AA* ,**347**,L31 ,J Gorosabel ,A J Castro-Tirad,A Pedrosa ,M R Zapatero-Oso,A J L Fernandes ,M Feroci ,E Costa ,F Frontera
- 12)" The influence of the Bulge profiles shapes on claims for a scale-free hubblesequence for spiral galaxies " ,1999, *ApJ* ,**524**,L23 ,A W Graham ,M Prieto
- 13)" Disc loss and renewal in A0535+26 " ,1999, *MNRAS* ,**310**,L21 ,N J Haigh ,M J Coe ,I A Steele ,J Fabregat
- 14)" On the parallax of WD 0346+246: a halo white dwarf candidate " ,1999, *MNRAS* ,**309**,L33 ,N C Hambly ,S J Smartt ,S T Hodgkin ,R F Jameson ,S N Kemp ,W R J Rolleston ,I A Steele
- 15)" CCD astrometry of Saturn's satellites in 1995 and 1997 " ,1999, *AASS* ,**136**,257 ,D Harper ,K Beurle ,I P Williams ,C D Murray ,D B Taylor ,A Fitzsimmons ,I M Cartwright
- 16)" Optical and radio observations of the afterglow from GRB 990510: Evidence for a jet " ,1999, *ApJ* ,**523**,L121 ,F A Harrison ,J S Bloom ,D A Frail ,R Sari ,S R Kulkarni ,S G

Djorgovski ,T Axelrod ,J Mould ,B P Schmidt ,M H Wieringa ,R M Wark ,R Subrahmanyan ,D McConnell ,P J McCarthy ,B E Schefer ,R G McMahon ,R O Markze ,E Firth ,P Soffitta ,L Amati

17) ” The metal homogeneity of the globular star cluster M5 ” ,1999, *MNRAS* ,**307**,789 ,A J Heald ,W K Griffiths ,A J Penny ,P W Morris

18) ” The X-ray transient XTE J2012+381 ” ,1999, *MNRAS* ,**305**,L49 ,R I Hynes ,P Roche ,P A Charles ,M J Coe

19) ” On the influence of the environment in the star formation rates of a sample of galaxies in nearby compact groups ” ,1999, *ApJ* ,**518**,94 ,J Iglesias, J M Vílchez

20) ” The EC 14026 stars - X A multi-site campaign on sdBV star PG 1605+72 ” ,1999, *MNRAS* ,**303**,525 ,D Kilkeny ,C Koen ,D O’Donoghue ,F van Wyk ,K A Larson ,R Shobbrook ,D J Sullivan ,M R Burleigh ,P D Dobbie ,S D Kawaler

21) ” The wind momentum-luminosity relationship of galactic A- and B-supergiants ” ,1999, *AA* ,**350**,970 ,R P Kudritzki ,J Puls ,D J Lennon ,K A Venn ,J Reetz ,F Najarro ,J K McCarthy ,A Herrero

22) ” Optical and X-ray variability in the least luminous active galactic nucleus,NGC 4395 ” ,1999, *MNRAS* ,**305**,109 ,P Lira ,A Lawrence ,P O’Brien ,R A Johnson ,R Terlevich ,N Bannister

23) ” CCD photometry of distant comets ” ,1999, *AA* ,**349**,649 ,S C Lowry ,A Fitzsimmons ,I M Cartwright ,I P Williams

24) ” Photoionization models of the NGC 2363 and their implications for the ionizing star cluster ” ,1999, *ApJ* ,**527**,110 ,V Luridiana ,M Peimbert ,C Leitherer

25) ” Effects of the interaction on the properties of spiral galaxies II Isolated galaxies: The zero point ” ,1999, *AA* ,**344**,421 ,I Márquez ,M Moles

26) ” Galactic B-supergiants: A non-LTE model atmosphere analysis to estimate atmospheric parameters and chemical compositions ” ,1999, *AA* ,**349**,553 ,N D McErlean ,D J Lennon ,P L Dufton

27) ” X-ray spectra of the RIXOS source sample ” ,1999, *MNRAS* ,**308**,233 ,J P D Mittaz ,F J Carrera ,E Romero-Colmene,K O Mason ,G Hasinger ,R McMahon ,H Andernach ,R Bower ,J Burgos-Martin ,J I González-S,D Wonnacott

28) ” The Be/X-ray transient V0332+53: evidence for a tilt between the orbit and equatorial plane? ” ,1999, *MNRAS* ,**307**,695 ,I Negueruela ,P Roche ,J Fabregat ,M J Coe

29) ” CCD photometry and astrometry for visual double and multiple stars of the HIPPARCOS catalogue ” ,1999, *AA* ,**346**,523 ,E Oblack ,P Lampens ,J Cuypers ,J L Halbwachs ,E Martín ,W Seggewiss ,D Sinachopoulos ,E L van Dessel ,M Chareton ,D Duval

- 30) " HST luminosity functions of the globular cluster M10, M22 and M55 " ,1999, *AA* ,**345**,485 ,G Piotto ,M Zoccali
- 31) " The study of the A type IIb supernova: SN 1996cb " ,1999, *AJ* ,**117**,736 ,Y Qiu ,W Li ,Q Qiao ,J Hu
- 32) " Early-type stars in the Galactic halo from the Palomar-Green Survey II A sample of distant, apparently young Population I stars " ,1999, *AA* ,**347**,69 ,W R J Rolleston ,N C Hambly ,F P Keenan ,D L Dufton ,R A Saffer
- 33) " Galactic globular cluster relative ages " ,1999, *AJ* ,**118**,2306 ,A Rosenberg ,I Saviane ,G Piotto ,A Aparicio
- 34) " A method for nuclear-component deconvolution in active galaxies " ,1999, *MNRAS* ,**310**,117 ,M Sánchez Port
- 35) " Young stellar nuclei in the lenticular galaxies I NGC 1023 and NGC 7332 " ,1999, *AJ* ,**117**,2725 ,O K Sil'chenko
- 36) " B and R CCD surface photometry of late-type galaxies " ,1999, *AA* ,**341**,725 ,J V Smoker ,D J Axon ,R D Davies
- 37) " Post nova white dwarf cooling in V1500 Cygni " ,1999, *AA* ,**352**,563 ,M W Somers ,T Naylor
- 38) " A confirmed location in the Galactic halo for the high-velocity cloud 'chain A' " ,1999, *Nature* ,**400**,138 ,H van Woerden ,U J Schwarz ,R F Peletier ,B P Wakker ,P M W Kalberla
- 39) " Understanding A-type supergiants I Ultraviolet and visible spectral atlas of A-type supergiants " ,1999, *AASS* ,**137**,351 ,E Verdugo ,A Talavera ,A I Gómez
- 40) " Understanding A-type supergiants II Atmospheric parameters and rotational velocities of Galactic A-type supergiants " ,1999, *AA* ,**346**,819 ,E Verdugo ,A Talavera ,A I Gómez
- 41) " Simultaneous multifrequency observations of the BL Lac MS 0205 7+3509 " ,1999, *AA* ,**345**,414 ,D Watson ,L Hanlon ,B McBreen ,N Smith ,M Tashiro ,A R Foley ,L Metcalfe ,V Beckmann ,S F Sánchez ,H Tersranta
- 42) " Mapping the gas kinematics and ionization structure of four ultraluminous IRAS galaxies " ,1999, *MNRAS* ,**309**,229 ,R J Wilman ,C S Crawford ,R G Abraham
- 43) " The optical variability of the narrow-line Seyfert 1 galaxy IRAS 13224-3809 " ,1999, *MNRAS* ,**304**,L46 ,A J Young ,C S Crawford ,A C Fabian ,W N Brandt ,P T O'Brien
- 44) " Evidence of H α periodicities in LS I+61 $^{\circ}$ 303 " ,1999, *AA* ,**351**,543 ,R K Zamanov ,J Martí ,J M Paredes ,J Fabregat ,M Ribó ,A E Tarasov
- 45) " Brown dwarfs in the Pleiades cluster " ,1999, *AASS* ,**134**,537 ,M R Zapatero ,R Rebolo ,E L Martín ,S T Hodgkin ,M R Cossburn ,A Magazzù ,I A Steele ,R F Jameson

Analysis

As we have mentioned above the list contains 245 articles, 42 of them including results from more than one telescope. 119 papers contain results from the WHT, 81 contain results from the INT, and 45 from the JKT. The corresponding numbers for 1998 were 228 (ALL), 118 (WHT), 72 (INT), and 38 (JKT). There has been an increase of the $\sim 8\%$ in the total number of articles, larger for the INT ($\sim 13\%$) and JKT ($\sim 18\%$). Figure 1 shows the distribution of the number of research papers from 1984 until 1999, divided by telescope. It is possible to see that the 1999 number of papers is the highest to date. These papers have been produced by 958 authors.

A significant fraction of the articles were based on data from more than one telescope ($\sim 21\%$). This fraction increases inversely with the size of the telescope ($\sim 44\%$ for JKT, $\sim 34\%$ for INT and $\sim 25\%$ for WHT). The fraction of articles based on more than one instrument on the same telescope is small ($\sim 4\%$).

By Instruments

Figure 2 shows the percentages of articles by instruments for the WHT (left) and INT (right). JKT was a single-instrument telescope in 1999. In this figure the visitor instruments were classified as “other”. The instruments that produced most articles were ISIS ($\sim 51\%$) for the WHT and IDS for the INT ($\sim 57\%$). In general, it is possible to see that the majority of the articles use data from instruments dedicated to spectroscopy. If we compare the percentage of articles by instrument with the percentage of allocated nights for these instruments (during 1997 and 1998), we would have a possible estimation of the productivity of each instrument.

Table 1 lists the result of this analysis: In this table is included, for each instrument, the percentage of articles by instrument, the ratio between this percentage and the percentage of allocated nights during the defined period. It is possible to see that the number of articles by the number of allocated time is roughly of the same order for all the instruments.

By Journals

Figure 3 shows the percentage of articles by the different “scanned” journals. The data from ING telescopes are mainly published in MNRAS ($\sim 36\%$), followed by AA ($\sim 24\%$) and ApJ ($\sim 20\%$). Approximated 69% of articles have been published in European journals (It is interesting to note here the excellent number of articles published in “top-cited” journals: Four articles were published in *Nature* and one article in *Science*)

By Nationalities

We have divided the number of articles by nationality of the institution of the first author, and compared with previous years. The sample of national groups comprises the countries with their own allocation committee, *United Kingdom*, *The Netherlands*, *Spain*, and *Others*. Figure 4 shows the result from this analysis. The fraction of publications by countries shows a decrease

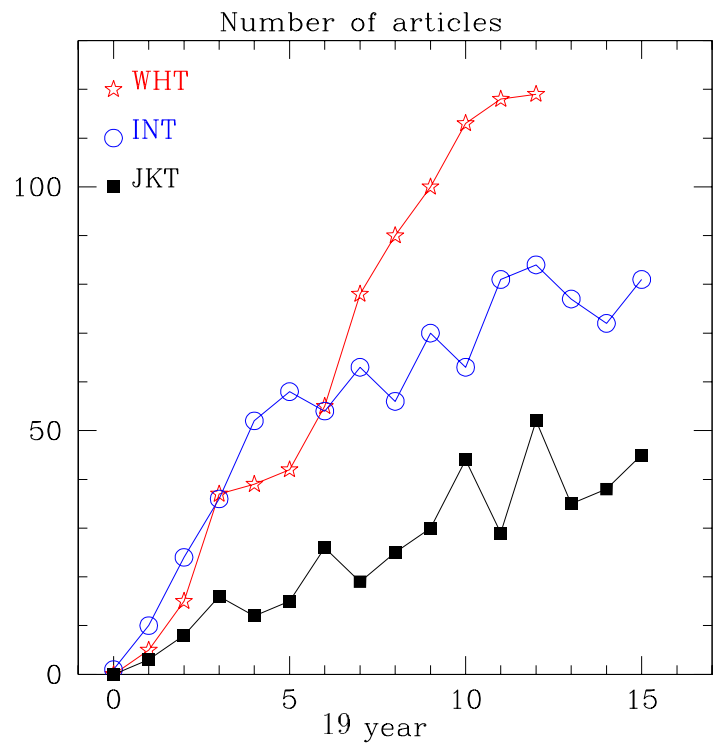
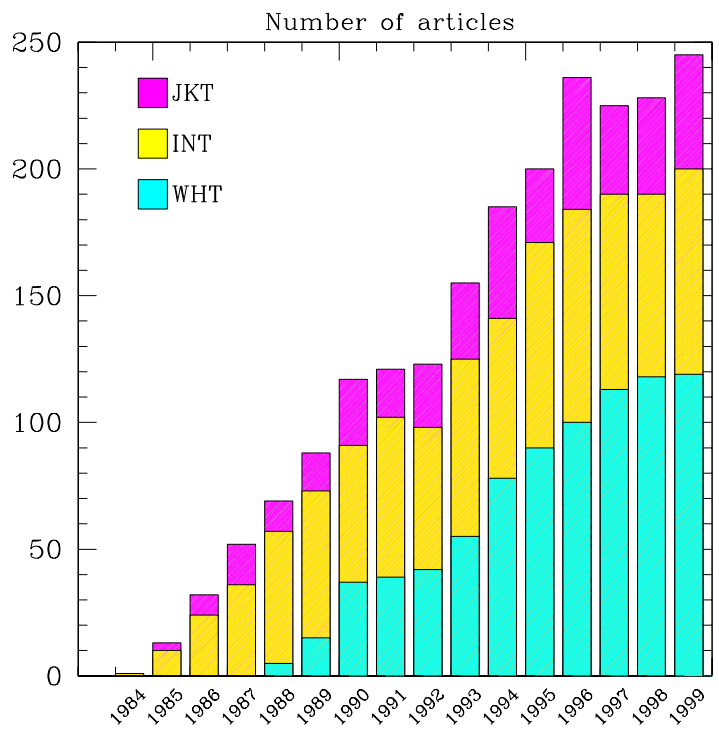


Figure 1: Number of research articles from 1984 until 1999 (*upper pannel*) and from the first operative year (*lower pannel*), resulting from data obtained with ING telescopes

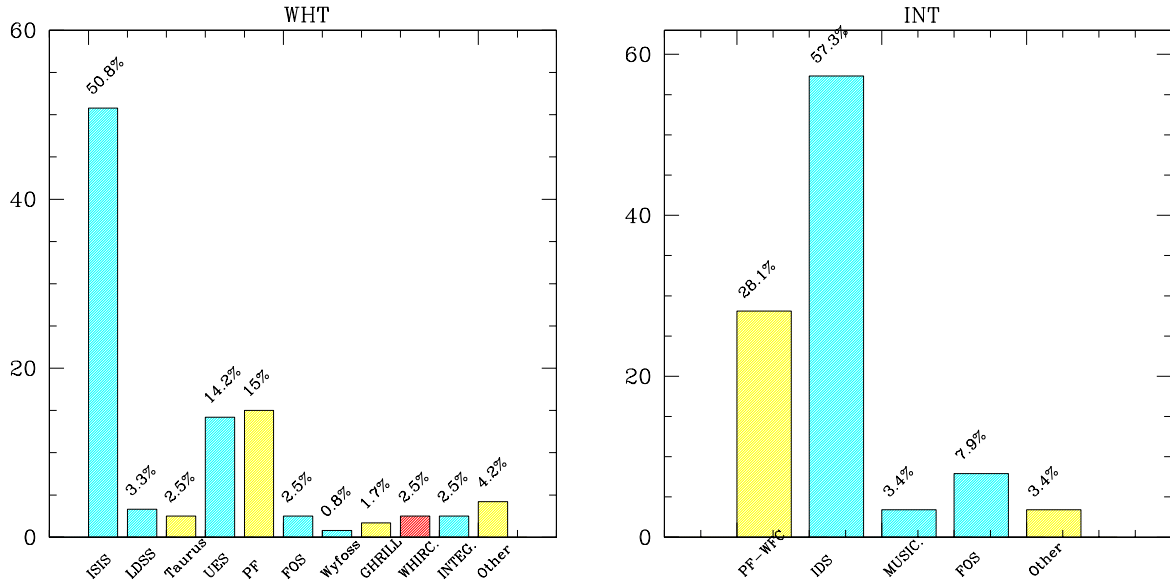


Figure 2: Percentage of articles by instrument for the WHT(left) and INT(right). The instruments dedicated to spectroscopy were indicated by blue. The NIR instruments by by red” , and the other instruments by by yellow.

Table 1: Number of articles by instrument and its productivity

WHT instrument	% of art.	%/nights
ISIS	50.8%	1.17
LDSS	3.3%	0.23
TAURUS	2.5%	0.41
UES	14.2%	1.53
PF	15.0%	1.24
WYFOSS	0.8%	0.10
WHIRCAM	2.5%	0.26
INTEGRAL	2.5%	1.42
INT instrument	% of art.	%/nights
PF/WFC	28.1%	0.69
IDS	57.3%	1.29
MUSICOS	3.4%	0.18

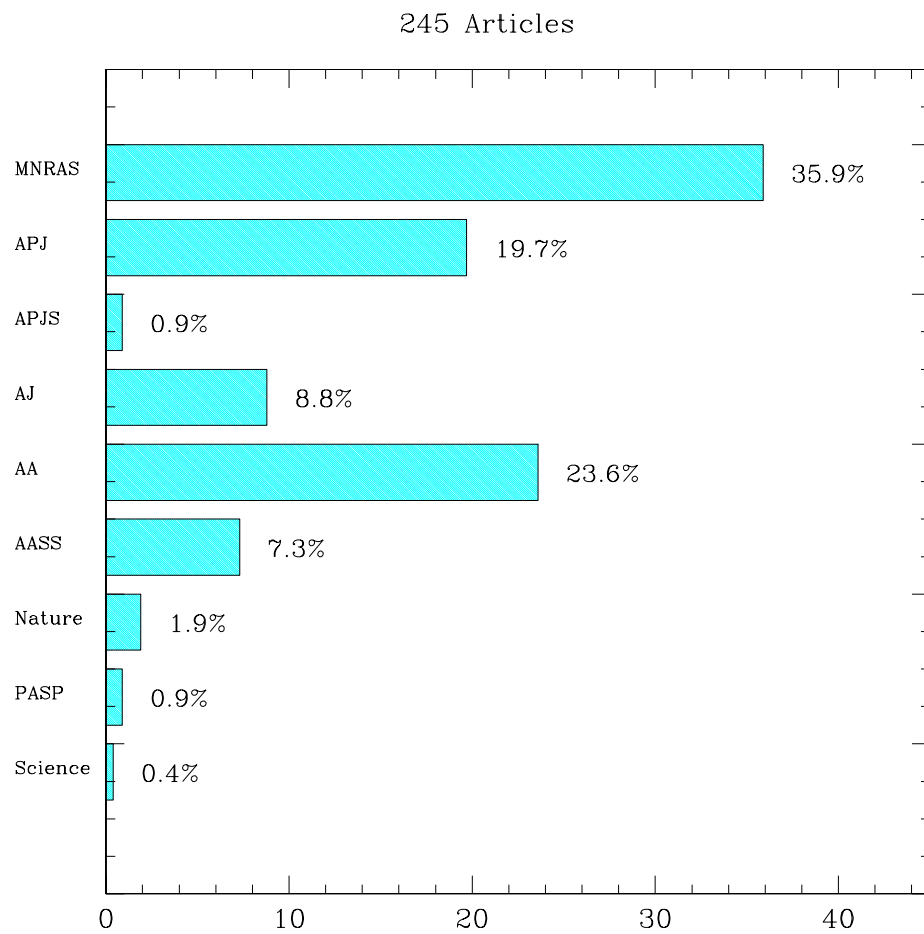


Figure 3: Percentage of articles by the different scanned Journals

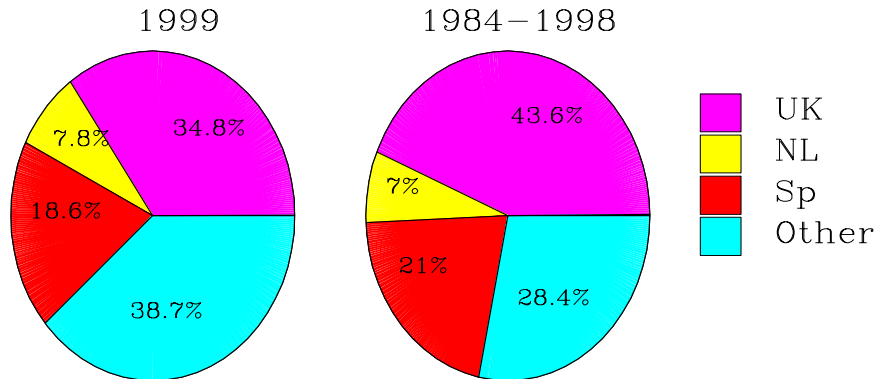


Figure 4: Percentage of articles by nationality for 1999 (left) and the previous years (right)

for the UK and Spanish authors, a smooth increase for the NL, and a clear increase for the *other* countries fraction. The authors from *other* nationalities come from a large variety of countries (20), but the ones with larger contributions were *USA* ($\sim 43\%$), Italy ($\sim 10\%$), Germany ($\sim 6\%$) and France ($\sim 6\%$).

A comparison of the number of articles by nationality with the fraction of allocated time by country shows that only for Spain are both percentages similar for the current (1999) and previous years ($\sim 20\%$). For the United Kingdom and the Netherlands, the fraction of articles drops to near half of the allocated time.

Figure 5 shows the distribution by nationality of the co-authors by national group of the first authors: i.e., for each article with a first author of a certain national group, the nationality of the co-authors is analyzed. It is possible to see that both UK and Spanish principal authors collaborate with astronomers from their own national group ($\sim 70\%$), but the NL astronomers use to collaborate more with people from other countries ($\sim 58\%$). It is also interesting to note here that the principal authors from other countries (lower-right panel in figure), collaborate even more widely with astronomers from different countries than UK, NL or Spain ($\sim 75\%$).

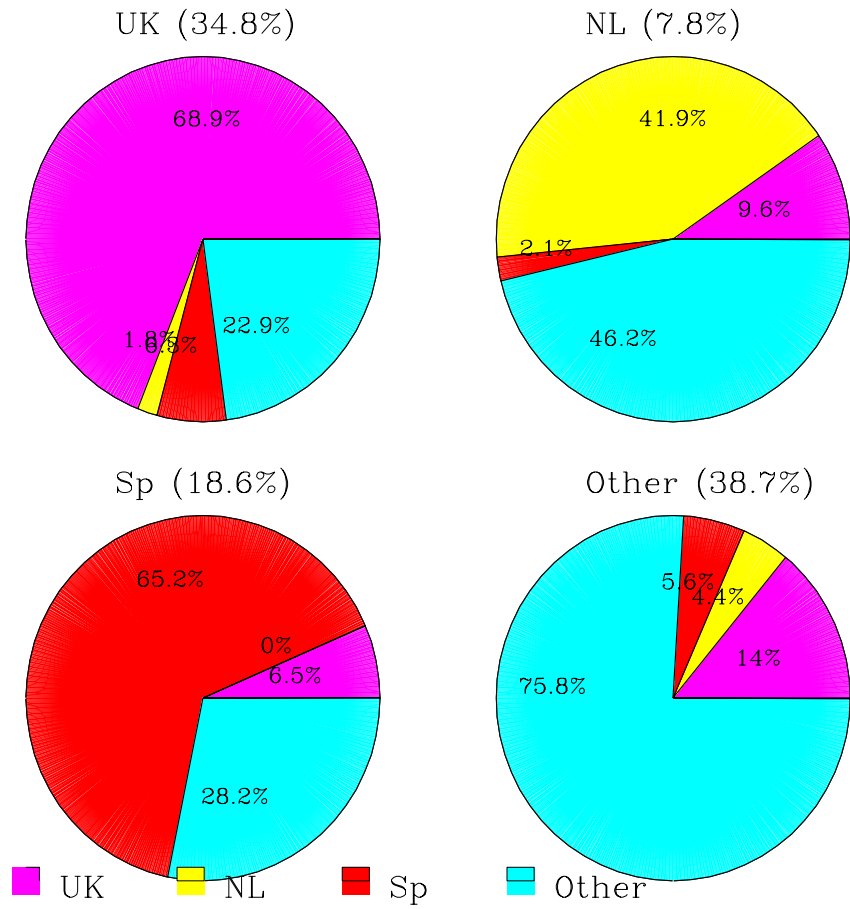


Figure 5: Percentage of co-authors from the different national groups by national group of the first author.