

## Stellar End Products

*Granada, April 13-15, 2005*

*editors: Miguel A. Perez-Torres*

### TABLE OF CONTENTS

<i>Foreword</i>	435
<i>List of Participants</i>	438
<b>From AGB Stars to Planetary Nebulae</b>	
D. Engels <i>AGB and post-AGB stars</i>	441
M.A. Guerrero, Y.-H. Chu, R.A. Gruendl <i>X-ray observations of hot gas in planetary nebulae</i>	449
M. Wittkowski, D.A. Boboltz, T. Driebe, K. Ohnaka <i>VLT observations of AGB stars</i>	457
W.H.T. Vlemmings, H.J. van Langevelde, P.J. Diamond <i>Magnetic fields around late-type stars using H<sub>2</sub>O maser observations</i>	462
A.M.S. Richards, P.J. Diamond, A. Bayo, M. Sierra, P. García-Lario, P. Osuna, P. Padovani, P. Rosati, M.G. Allen, S. Derriere, N.A. Walton, I. Bains <i>Hunting post-AGB/RSG objects using virtual observatories and other internet-based technology</i>	467
Y. Gómez, D. Tafoya, G. Anglada, R. Franco-Hernández, J.M. Torrelles, L. F. Miranda <i>OH maser emission toward the young planetary nebula K3-35</i>	472
C.J. Wareing, T.J. O'Brien, A.A. Zijlstra, J.E. Drew <i>Sh2-188: a model for a speedy planetary nebula</i>	477
L. Cerrigone, G. Umana, C. Trigilio <i>The very young planetary nebula LS IV -12 111</i>	482
F.M. Jiménez-Esteban, D. Engels, P. García-Lario <i>Stellar evolution and the 'O-rich AGB sequence'</i>	485

- D. Martín-Gordón, J.M. Vílchez, A. Riera  
*2D ionization structure of haloes of wind driven nebulae* 488
- D. Tafoya, Y. Gómez, L. Loinard, G. Anglada, J.M. Torrelles, L.F. Miranda, R. Franco-Hernández, L.-A. Nyman, J. Nakashima  
*Detection of HCO<sup>+</sup> toward the planetary nebula K3-3* 491

### **Pulsars and Neutron Stars**

- J.G. Kirk  
*Observational constraints on pulsar wind theories* 494
- A. Possenti  
*Observations of radio pulsars* 500
- O.D. Toropina, M.M. Romanova, Yu. M. Toropin, R.V.E. Lovelace  
*Spherical accretion to a magnetized neutron star in the 'propeller' regime* 508
- D. Gondek-Rosinska, T. Bulik, K. Belczynski  
*What can we learn about neutron star binaries from gravity wave observations* 513
- J.A. Pons, J.F. Pérez-Azorin, J.A. Miralles  
*The intriguing thermal emission of isolated neutron stars* 518
- M. Frackowiak, B. Rudak  
*Numerical high energy radiation modeling of selected millisecond pulsars* 523
- J. O'Brien, M. Kramer, M.A. McLaughlin, A.G. Lyne  
*A search for radio transients* 528
- W.H.T. Vlemmings, S. Chatterjee, W.F. Brisken, T.J.W. Lazio, J.M. Cordes, S.E. Thorsett, W.M. Goss, E.B. Fomalont, M. Kramer, A.G. Lyne, S. Seagroves, J.M. Benson, M.M. McKinnon, D.C. Backer  
*Pulsar astrometry at the microarcsecond level* 531

### **Supernovae and Supernova Remnants**

- D.A. Green  
*Some statistics of Galactic SNRs* 534
- A. Alberdi, M.A. Pérez-Torres  
*VLBI imaging of young radio supernovae* 542
- D.I. Kosenko, S.I. Blinnikov, K.A. Postnov, E.I. Sorokina  
*Hydrodynamical models of young SNRs* 550
- C. Badenes, K. Borkowski, E. Bravo, J.P. Hughes, U. Hwang  
*Exploring the physics of type Ia supernovae through the X-ray spectra of their remnants* 555
- J.A. Combi, P. Benaglia, G.E. Romero, M. Sugizaki  
*The physical connection between G337.2+01 and AX J1635.9-4719* 560

M.K. Argo, R.J. Beswick, T.W.B. Muxlow, A. Pedlar, D. Fenech, H. Thrall <i>MERLIN monitoring of recent core-collapse supernovae</i>	565
Z. Paragi, M.A. Garrett, B. Paczynski, C. Kouveliotou, A. Szomoru, C. Reynolds, S.M. Parsley, T. Ghosh <i>e-VLBI observations of SN2001em - an off-axis GRB candidate</i>	570
S.G. Moiseenko, G.S. Bisnovaty-Kogan, N.V. Andeljan <i>Magnetorotational supernovae - the supernova mechanism that works</i>	575
S. Bourke, G. Clyne, W.F. Brisken, T.W.B. Muxlow, A. Golden <i>MERLIN observations of PSR B1951+32 and its associated plerion</i>	580
D. Fenech, T.W.B. Muxlow, A. Pedlar, R. Beswick, M.K. Argo, K. Wills <i>MERLIN deep radio observations of supernova remnants in M82</i>	583
T.W.B. Muxlow, A. Pedlar, R.J. Beswick, M.K. Argo, T.J. O'Brien, D. Fenech, W. Trotman <i>Is 41.95+575 in M82 actually an SNR</i>	586
C. Kehrig, J.M. Vílchez, E. Telles, F. Cuisinier, E. Pérez-Montero <i>Oxygen and Sulfur enrichment in low metallicity HII galaxies</i>	589
<b>Compact Objects in Binary Systems</b>	
J. Martí <i>Radio observations of X-ray binaries</i>	592
E. Gallo, R.P. Fender <i>Accretion modes and jet production in black hole X-ray binaries</i>	600
M. Afsar, H.E. Bond <i>Radial-velocity survey of central stars of southern planetary nebulae</i>	608
D. Pérez-Ramírez, J. Martí, J.L. Garrido, P. Luque-Escamilla, J.M. Paredes <i>Cygnus X-3: a Fanaroff-Riley type II microquasar?</i>	612
A. Dorodnitsyn <i>On the formation of line-driven winds near compact objects</i>	617
Yu. Artemova, G. Bisnovaty-Kogan, I. Igumenshchev, I. Novikov <i>Optical depth transition in advective accretion disks around black holes</i>	622
E. Sipahi, S. Evren, G. Tas, C. Ibanoglu <i>Photoelectric photometry of the unusual eclipsing binary system FF Aquarii</i>	627
D. Gondek-Rosinska, T. Bulik, K. Belczynski <i>Selection effects in detecting gravitational waves from binary inspiral</i>	632

**Gamma Ray Bursts**

- A.J. van der Horst  
*Radio afterglows of Gamma-ray bursts* 635
- A.J. Castro-Tirado  
*Gamma-ray bursts at near-IR/optical/X-ray wavelengths* 643
- M.V. Barkov, G.S. Bisnovatyi-Kogan  
*Gamma-ray burst interaction with dense interstellar medium* 650
- A. de Ugarte Postigo, J. Gorosabel, A.J. Castro-Tirado, G. Johannesson, G. Bjornsson,  
E.H. Gudmundsson, M. Bremer, J.M. Castro Cerón, S. Guzyi, M. Jelinek, D. Pérez-  
Ramírez  
*Modelling the afterglow of GRB 021004 with multiple energy injections* 655