Rodolfo Barniol Duran

Refereed Journal Publications

1. *Collapsar Gamma-Ray Bursts: how the luminosity function dictates the duration distribution*
   Petropoulou M., **Barniol Duran R.**, Giannios D., 2017, MNRAS, submitted (arXiv:1707.01914)

2. *Theoretical Description Of GRB 160625B with Wind-to-ISM Transition and Implications for a Magnetized Outflow*
   Fraija N., Veres P., Zhang B.B., **Barniol Duran R.**, Becerra R.L., Zhang B., Lee W.H., Watson A.M., Ordaz-Salazar C., Galvan-Gamez A., 2017, ApJ, submitted (arXiv:1705.09311)

3. *TDE fallback cut-off due to a pre-existing accretion disc*
   Kathirgamaraju A., **Barniol Duran R.**, Giannios D., 2017, MNRAS, 469, 314

4. *Three-dimensional Simulations of AGN Jets: Magnetic Kink Instability versus Conical Shocks*
   Barniol Duran R., Tchekhovskoy A., Giannios D., 2017, MNRAS, 469, 4957

5. *Modeling the early afterglow in the short and hard GRB 090510*
   Fraija N., Lee W.H., Veres P., **Barniol Duran R.**, 2016, ApJ, 831, 22

6. *GRB off-axis afterglows and the emission from the accompanying supernovae*
   Kathirgamaraju A., **Barniol Duran R.**, Giannios D., 2016, MNRAS, 461, 1568

7. *Radio SNRs in the Magellanic Clouds as probes of shock microphysics*
   Barniol Duran R., Whitehead J.F., Giannios D., 2016, MNRAS, 462, L31

8. *An anisotropic minijets model for the GRB prompt emission*
   Barniol Duran R., Leng M., Giannios D., 2016, MNRAS, 455, L6

9. *Radio rebrightening of the GRB afterglow by the accompanying supernova*
   Barniol Duran R., Giannios D., 2015, MNRAS, 454, 1711

10. *Energies of GRB blast waves and prompt efficiencies as implied by self-consistent modeling of X-ray and LAT afterglows*
    Beniamini P., Lara N., **Barniol Duran R.**, Piran T., 2015, MNRAS, 454, 1073

11. *The afterglow of a relativistic shock breakout and low luminosity GRBs*
Barniol Duran R., Nakar E., Piran T., Sari R., 2015, MNRAS, 448, 417

12. *The Nature of ULX Source M101 X-1: Optically Thick Outflow from A Stellar Mass Black Hole*
Shen R.-F., **Barniol Duran R.**, Nakar E., Piran T., 2015, MNRAS, 447, L60

13. *Clustering of LAT light curves: a clue to the origin of high-energy emission in gamma-ray bursts*
Nava L., Vianello G., Omodei N., Ghisellini G., Ghirlanda G., Celotti A., Longo F., Desiante R., **Barniol Duran R.**, 2014, MNRAS, 443, 3578

14. *Constraining the magnetic field in GRB relativistic collisionless shocks using radio data*
Barniol Duran R., 2014, MNRAS, 442, 3147

15. *Magnetic Fields In Relativistic Collisionless Shocks*
Santana R., **Barniol Duran R.**, Kumar P., 2014, ApJ, 785, 29

16. *The signature of the central engine in the weakest relativistic explosions: GRB100316D*
Margutti R., Soderberg A.M., Wieringa M.H., Edwards P.G., Chevalier R.A., Morsony B.J., **Barniol Duran R.**, Sironi L., Zauderer B.A., Milisavljevic D., Kamble A., Pian E., 2013, ApJ, 778, 18

17. *A model for the multiwavelength radiation from tidal disruption event Swift J1644+57*
Kumar P., **Barniol Duran R.**, Bošnjak Ž., Piran T., 2013, MNRAS, 434, 3078

18. *On the origin of the radio emission of Sw 1644+57*
Barniol Duran R., Piran T., 2013, ApJ, 770, 146

19. *Radius constraints and minimal equipartition energy of relativistically moving synchrotron sources*
Barniol Duran R., Nakar E., Piran T., 2013, ApJ, 772, 78

20. *Maximum Synchrotron Frequency for Shock Accelerated Particles*
Kumar P., Hernández R. A., Bošnjak Ž., **Barniol Duran R.**, 2012, MNRAS, 427, L40

21. *Inverse Compton cooling in Klein-Nishina regime and GRB prompt spectrum*

Barniol Duran R., Bošnjak Ž., Kumar P., 2012, MNRAS, 424, 3192

22. *Evidence for mild deviation from power-law distribution of electrons in relativistic shocks: GRB 090902B*
Barniol Duran R., Kumar P., 2011, MNRAS, 417, 1584

23. *Implications of diffusive shock acceleration for high-energy radiation from gamma-ray bursts*
Barniol Duran R., Kumar P., 2011, MNRAS, 412, 522

24. *On the average gamma-ray burst X-ray flaring activity*
Margutti R., Bernardini G., **Barniol Duran R.**, Guidorzi C., Shen R.F., Chincarini G., 2010, MNRAS, 410, 1064

25. *External forward shock origin of high energy emission for three gamma-ray bursts detected by Fermi*
Kumar P., **Barniol Duran R.**, 2010, MNRAS, 409, 226

26. *GRB081028 and its late-time afterglow re-brightening*
Margutti R., Genet F., Granot J., **Barniol Duran R.**, Guidorzi C., Chincarini G., Mao J., Schady P., Sakamoto T., Miller A. A., Olofsson G., Bloom J. S., Evans P. A., Fynbo J. P. U., Malesani D., Moretti A., Pasotti F., Starr D., Burrows D. N., Barthelmy S. D., Roming P. W. A., Gehrels N., 2010, MNRAS, 402, 46

27. *On the generation of high-energy photons detected by the Fermi Satellite from gamma-ray bursts*
Kumar P., **Barniol Duran R.**, 2009, MNRAS, 400, L75

28. *Adiabatic expansion, early X-ray data and the central engine in GRBs*
Barniol Duran R., Kumar P, 2009, MNRAS, 395, 955

29. *Scattered emission from a relativistic outflow and its application to gamma-ray bursts*
Shen R.-F., **Barniol Duran R.**, Kumar P., 2008, MNRAS, 384, 1129

Non-Refereed Proceedings

1. *High energy photons from Fermi GRBs: Who would have thought that they were produced in the external shock?*
Barniol Duran R., Kumar P., 2010, in The Shocking Universe - Gamma-Ray Bursts and High Energy Shock Phenomena, Conference Proceedings, Vol. 102, Chincarini G., D'Avanzo P., Margutti R., Salvaterra R., eds, SIF, p. 233