

## Pisani Giovanni Battista

**Position:** Assegnista di Ricerca (Post-Doc),  
Sapienza University of Rome, Rome, Italy and  
ICRANet, Pescara, Italy

**Period covered:** 1<sup>st</sup> April 2015 – 31<sup>st</sup> March 2016

**Former position:** Ph.D. Student, Erasmus  
Mundus IRAP Ph.D. Program

**Period covered:** 1<sup>st</sup> September 2011 – 26<sup>st</sup>  
November 2014



### I Scientific Work

Gamma Ray Bursts (GRBs) are among the most puzzling astronomical objects since their first detection by the Vela satellites in the late 1960s. GRBs are flashes in gamma-rays observed in distant galaxies. They can last from milliseconds to several minutes with an isotropic energy released up to the order of one solar mass. This peculiarity makes them the most powerful events ever observed in the Universe. A variety of models have been developed to theoretically explain the observational properties of GRBs.

My PhD research project includes the reduction and analysis of GRBs data from different satellites, such as Batse, Swift or Fermi. I investigate GRBs observations within the fireshell model scenario, which predicts that GRBs originate from an optically thick  $e^+e^-$  plasma at thermal equilibrium created by vacuum polarization during the formation of a Black Hole.

My attention is focused on GRBs associated with Supernovae (SN). Since the first discovery of this association (GRB 980425 - SN1998wt), various mechanisms have been proposed to explain it. Recently Prof. Ruffini and his collaborators have proposed the Induced Gravitational Collapse (IGC) occurring in a particular class of binary systems as progenitors for the GRB-SN sources having a released isotropic energy above  $10^{52}$  ergs. We refer to such phenomena as Binary-driven HyperNovae (BdHNe). Together with them we are further developing the BdHN paradigm and enlarging the sample of BdHN candidates. One of the most exciting outcomes of this work is the possibility to consider this class of BdHN events as a standard candle. If confirmed, this result could provide new independent challenges on the current cosmological model back to 600 millions years only after the Big Bang.

During my current Post-Doc research project, basing on my Ph.D. thesis results, I am focusing on building a complete sample of BdHNe looking at redshifts larger than  $z \sim 1$ , in order to drastically enlarge our current sample and to confirm that the standard candle hypothesis holds at larger cosmological distances. My recent analysis points to a non-spherical emission of the late X-ray of BdHNe which is supposedly generated by the young SN remnant. This result is in agreement with the observations of non-spherical SN remnants.

## **II Conferences and educational activities**

### *II a Conferences and Other External Scientific Work*

- 1) “Erasmus Mundus School”, Nice, France, 5<sup>th</sup> - 17<sup>th</sup> September, 2011;
- 2) “TRAP Erasmus Mundus Workshop”, Les Houches, France, 2<sup>nd</sup> - 6<sup>th</sup> October, 2011;
- 3) “Third Galileo-Xu Guangqi” meeting, Beijing, China, 11<sup>th</sup>- 15<sup>th</sup> October, 2011;
- 4) “Fermi/Swift GRB 2012 Conference”, Munich, Germany, 7<sup>th</sup> – 11<sup>th</sup> May, 2012;

Poster 1: The proto-black hole concept in GRB 101023 and its possible extension to GRB 110709B; A.V. Penacchioni, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, G.B. Pisani;

Poster 2: Needs for a new GRB classification following the fireshell model: "genuine short", "disguised short" and "long" GRBs; C.L. Bianco, M.G. Bernardini, L. Caito, G. De Barros, L. Izzo, M. Muccino, B. Patricelli, A.V. Penacchioni, G. B. Pisani, R. Ruffini.

- 5) “Erasmus Mundus School”, Nice, France, 4<sup>th</sup> – 8<sup>th</sup> June, 2012;

Lecture: A new interpretation for the disguised short GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, J. A. Rueda, M. Muccino, A. V. Penacchioni.

- 6) “13<sup>th</sup> Marcel Grossmann Meeting”, Stockholm, Sweden, 1<sup>st</sup> - 7<sup>th</sup> July, 2012;

Talk: A new possible interpretation for GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, J. A. Rueda, M. Muccino, A. V. Penacchioni.

- 7) “Erasmus Mundus School”, Nice, France, 3<sup>rd</sup> – 19<sup>th</sup> September, 2012;

Lecture: The class of “disguised” short GRBs within the fireshell model and the particular case of GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni.

- 8) III National Congress “Lampi su Napoli”, Naples, Italy, 20<sup>th</sup> - 22<sup>nd</sup> September, 2012;

- 9) “The Current Issues on Relativistic Astrophysics”, 5<sup>th</sup> - 6<sup>th</sup> October, 2012, Seoul, South Korea;

Talk: Evidence and consequences of universal behavior of late time X-ray emission of Gamma-Ray Bursts connected with Supernovae; G. B. Pisani, R. Ruffini, C. L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

- 10) “7<sup>th</sup> Huntsville GRB Symposium”, Nashville TN, USA, 14<sup>th</sup> – 18<sup>th</sup> April, 2013;

Poster: Novel distance indicator for Gamma-Ray Bursts associated with Supernovae; G. B. Pisani, L. Izzo, R. Ruffini, C.L. Bianco, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

- 11) “2<sup>nd</sup> Bego Rencontres”, Nice, France, 16<sup>th</sup> – 31<sup>st</sup> May, 2013;

Talk: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

- 12) “2013 yearly ICRANet Scientific Meeting on Relativistic Astrophysics”, Pescara, Italy, 3<sup>rd</sup> – 21<sup>th</sup> June, 2013;

- 13) “1<sup>st</sup> URCA Meeting on Relativistic Astrophysics”, Rio de Janeiro, Brasil, 24<sup>th</sup> – 29<sup>th</sup> June, 2013;

Talk: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

14) “13<sup>th</sup> Italian-Korean Symposium on Relativistic Astrophysics”, Seoul, South Korea, 15<sup>th</sup> – 19<sup>th</sup> July, 2013;

Talk: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

15) “Erasmus Mundus School”, Nice, France, 3<sup>rd</sup> – 20<sup>th</sup> September, 2013;

Lecture: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

16) “27<sup>th</sup> Texas Meeting on Relativistic Astrophysics”, Dallas TX, USA, 8<sup>th</sup> - 13<sup>th</sup>, December 2013;

Talk: The IGC GRB-SN family: the cases of GRB 130427A and GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

17) “Erasmus Mundus School”, Nice, France, 23<sup>rd</sup> - 27<sup>th</sup> February, 2014;

Lecture 1: GRBs-SNe within the Induced Gravitational Collapse model; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang;

Lecture 2: The role of the High Energy in short and long GRBs; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

18) “Erasmus Mundus School”, Les Houches, France, 11<sup>th</sup> - 16<sup>th</sup> May, 2014;

Lecture: GRBs-SNe within the Induced Gravitational Collapse model: towards a new standard candle; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

19) “1<sup>st</sup> Scientific ICRANet Meeting in Armenia”, Yerevan, Armenia, 30<sup>th</sup> June - 4<sup>th</sup> July, 2014.

Talk: Energetic GRBs-SNe within the Induced Gravitational Collapse model: towards a new standard candle; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

20) “3<sup>rd</sup> Bego Rencontres”, Nice, France, 8<sup>th</sup> – 19<sup>th</sup> September, 2014;

Talk: Energetic GRBs-SNe within the Induced Gravitational Collapse; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang;

21) “Swift: 10 Years of Discovery”, Rome, Italy, 2<sup>nd</sup> – 5<sup>th</sup> December, 2015;

Poster: Binary-driven HyperNovae and their nested late X-ray emission; G. B. Pisani, R. Ruffini, M. Muccino, C. L. Bianco, M. Enderli, M. Kovacevic, A. V. Penacchioni, J. A. Rueda, Y. Wang, E. Zaninoni, L. Izzo;

22) “2<sup>nd</sup> Cesar Lattes Meeting”, Rio de Janeiro, Brazil, 10<sup>th</sup> – 20<sup>th</sup> April, 2015;

Talk: Perspectives for Binary-driven HyperNovae at high redshift; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang, E. Zaninoni;

23) “The XIV Marcel Grossmann Meeting”, Rome, Italy, 13<sup>th</sup> – 17<sup>th</sup> July, 2015;

Talk: Perspectives for Binary-driven HyperNovae at high redshift; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang, E. Zaninoni;

24) “The 14<sup>th</sup> Italian-Korean Symposium on Relativistic Astrophysics”, Pescara, Italy, 20<sup>th</sup> – 24<sup>th</sup> July, 2015;

Talk: Properties of the X-ray afterglow of Binary-driven HyperNovae; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang, E. Zaninoni.

#### *II b Work With Students*

None

#### *II c Diploma thesis supervision*

None

#### *II d Other Teaching Duties*

None

#### *II e. Work With Postdocs*

None

### **III. Service activities** [*activities carried out in collaboration with ICRANet (e.g. teaching activities, conferences etc...) and outside ICRANet (teaching activities in your university etc...)*]

#### *III a. Within ICRANet*

Teaching activities for international Ph.D. Schools organized by ICRANet. List of schools and lectures:

1) “Erasmus Mundus School”, Nice, France, 4<sup>th</sup> – 8<sup>th</sup> June, 2012;

Lecture: A new interpretation for the disguised short GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, J. A. Rueda, M. Muccino, A. V. Penacchioni.

2) “Erasmus Mundus School”, Nice, France, 3<sup>rd</sup> – 19<sup>th</sup> September, 2012;

Lecture: The class of “disguised” short GRBs within the fireshell model and the particular case of GRB 060614; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni;

3) “2<sup>nd</sup> Bego Rencontres”, Nice, France, 16<sup>th</sup> – 31<sup>st</sup> May, 2013;

Lecture: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

4) “Erasmus Mundus School”, Nice, France, 3<sup>rd</sup> – 20<sup>th</sup> September, 2013;

Lecture: A new subclass of energetic GRB-SN sources: The IGC GRB-SN family; G. B. Pisani, R. Ruffini, C.L. Bianco, L. Izzo, M. Muccino, A. V. Penacchioni, J. A. Rueda.

5) “Erasmus Mundus School”, Nice, France, 23<sup>rd</sup> - 27<sup>th</sup> February, 2014;

Lecture 1: GRBs-SNe within the Induced Gravitational Collapse model; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang;

Lecture 2: The role of the High Energy in short and long GRBs; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

6) “Erasmus Mundus School”, Les Houches, France, 11<sup>th</sup> - 16<sup>th</sup> May, 2014;

Lecture: GRBs-SNe within the Induced Gravitational Collapse model: towards a new standard candle; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

7) “3<sup>rd</sup> Bego Rencontres”, Nice, France, 8<sup>th</sup> – 19<sup>th</sup> September, 2014;

Lecture: Energetic GRBs-SNe within the Induced Gravitational Collapse; G. B. Pisani, R. Ruffini, C.L. Bianco, M. Enderli, L. Izzo, M. Kovacevic, M. Muccino, A. V. Penacchioni, J. A. Rueda, Y. Wang.

### *III b. Outside ICRANet*

Teaching activity as assistant of Professor Valerio Parisi in his Physics classes for Medical Science students, Sapienza University of Rome.

## **IV. Other**

None

## **List of Publications**

### **Scientific papers published on refereed Journals (9)**

- Muccino, M.; Ruffini, R.; Bianco, C. L.; Izzo, L.; Penacchioni, A. V.; **Pisani, G. B.**, ``GRB 090510: a disguised short GRB with the highest Lorentz factor and circumburst medium'', 2013, ApJ, 772, 62;
- Penacchioni, A.V.; Ruffini, R.; Bianco, C. L.; Izzo, L.; Muccino, M.; **Pisani, G. B.**; Rueda, J. A., ``GRB 110709B in the induced gravitational collapse paradigm'', 2013, A&A, 551, A133;
- **Pisani, G. B.**; Izzo, L.; Ruffini, R.; Bianco, C. L.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., ``Novel distance indicator for gamma-ray bursts associated with supernovae'', 2013, A&A, 552, L5;
- Ruffini, R.; Muccino, M.; Bianco, C. L.; Enderli, M.; Izzo, L.; Kovacevic, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., ``On binary-driven hypernovae and their nested late X-ray emission'', 2014, A&A , 565, L10;
- Ruffini, R.; Izzo, L.; Muccino, M.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y.; Barbarino, C.; Bianco, C. L.; Enderli, M.; Kovacevic, M., ``Induced gravitational collapse at extreme cosmological distances: the case of GRB 090423'', 2014, A&A, 569, A39;
- Kovacevic, M.; Izzo, L.; Wang, Y.; Muccino, M.; Della Valle, M.; Amati, L.; Barbarino, C.; Enderli, M.; **Pisani, G. B.**; Li, L., ``A search for Fermi bursts associated to supernovae and their frequency of occurrence'', 2014, A&A, 569, A180;
- Ruffini, R.; Izzo, L.; Muccino, M.; Rueda, J. A.; Barbarino, C.; Bianco, C. L.; Dereli, H.; Enderli, M.; Penacchioni, A. V.; **Pisani, G. B.**; Wang, Y., ``Induced Gravitational Collapse in the BATSE era: the case of GRB 970828'', 2015, A&A, 59, 626;
- Ruffini, R.; Wang, Y.; Kovacevic, M.; Bianco, C. L.; Enderli, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A., ``GRB 130427A and SN 2013cq: A Multi-wavelength Analysis of an Induced Gravitational Collapse Event'', 2015, ApJ, 798, 10.
- Ruffini, R.; Muccino, M.; Kovacevic, M.; Izzo, L.; Bianco, C. L.; Enderli, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y.; Zaninoni, E., ``GRB 140619B: a short GRB from a binary neutron star merger leading to a black hole formation'', 2015, ApJ, 808, 190.

### **Scientific papers submitted to refereed Journals or in preparation (3)**

- Enderli, M.; Ruffini, R.; Aimuratov, Y.; Bianco, C. L.; Kovacevic, M.; Moradi, R.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., ``GRB 090510: A Genuine Short-GRB from a Binary Neutron Star Coalescing into a Kerr-Newman Black Hole'', submitted to ApJ;
- Ruffini, R.; Rueda, J. A.; Muccino, M.; **Pisani, G. B.**; Wang, Y.; Becerra, L. M.; Kovacevic, M.; Oliveira, F. G.; Bianco, C. L.; Moradi, R., ``On Rate and Nature of Short and Long GRBs'', to be submitted to ApJ;
- Ruffini, R.; **Pisani, G. B.**; Aimuratov, Y.; Bianco, C. L.; Kovacevic, M.; Moradi, R.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., ``Hints for Asphericity in the X-ray Emission of Binary-driven Hypernovae'', to be submitted to A&A.

### **Proceedings of science (8)**

- **Pisani, G. B.**; Ruffini, R.; Bianco, C. L.; Enderli, M.; Izzo, L.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y.; Zaninoni, E., “Perspectives for Binary-driven Hypernovae at large redshift”, 2015, POS CL2;
- **Pisani, G. B.**; Ruffini, R.; Muccino, M.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y.; Zaninoni, E.; Izzo, L., “Binary-driven HyperNovae and their nested late X-ray emission”, 2015, POS Swift: 10 Years of Discovery;
- **Pisani, G. B.**; Ruffini, R.; Bianco, C. L.; Enderli, M.; Izzo, L.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., “The IGC GRB-SN family: the cases of GRB 130427A and GRB 060614”, 2014, POS 27<sup>th</sup> Texas Symposium;
- **Pisani, G. B.**; Ruffini, R.; Bianco, C. L.; Enderli, M.; Izzo, L.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., “A new subclass of energetic GRB-SN sources: the IGC GRB-SN family”, 2013, POS IK13;
- **Pisani, G. B.**; Izzo, L.; Ruffini, R.; Bianco, C. L.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., “On a novel distance indicator for Gamma-Ray Bursts associated with Supernovae”, 2013, POS Huntsville GRB Symposium;
- **Pisani, G. B.**; Izzo, L.; Ruffini, R.; Bianco, C. L.; Muccino, M.; Penacchioni, A. V.; Rueda, J. A.; Wang, Y., “On a novel distance indicator for Gamma-Ray Bursts associated with Supernovae”, 2013, POS MG13;
- Bianco, C. L.; Bernardini, M. G.; Caito, L.; De Barros, G.; Izzo, L.; Muccino, M.; Patricelli, B.; Penacchioni, A. V.; **Pisani, G. B.**; Ruffini, R., “Needs for a new GRB classification following the fireshell model: "genuine short", "disguised short" and "long" GRBs”, 2012, POS GRB 2012 Conference;
- Penacchioni, A. V.; **Pisani, G. B.**; Ruffini, R.; Bianco, C. L.; Izzo, L.; Muccino, M., “The proto-black hole concept in GRB 101023 and its possible extension to GRB 110709B”, 2012, POS GRB 2012 Conference.

### **GRB Coordinates Network, Circular Service (11)**

- Ruffini, R.; Aimuratov, Y.; Barres, U.; Belvedere, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Moradi, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 151027A: the missing GeV component”, 2015, GCN 18555, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Li, L.; Muccino, M.; Muccino, M.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 150906B: theoretical estimation of redshift and isotropic energy”, 2015, GCN 18296, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 140206A: theoretical prediction of redshift and of supernova occurrence”, 2014, GCN 15794, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 140108A: theoretical prediction of redshift and of supernova occurrence”, 2014, GCN 15707, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 131202A: theoretical estimation of the redshift.”, 2013, GCN 15576, 1;

- Ruffini, R.; Bianco, C. L.; Enderli, M.; Kovacevic, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Wang, Y., “GRB 060614: theoretical derivation of the redshift and need for deeper search of the host galaxy”, 2013, GCN 15560, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Sahakyan, N.; Wang, Y.; Izzo, L., “GRB 130925A: possible signatures of binary nature in the afterglow - request for observations”, 2013, GCN 15322, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Sahakyan, N.; Wang, Y., “GRB 130603B: analogy with GRB 090510A and possible connection with a supernova”, 2013, GCN 14913, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Sahakyan, N.; Wang, Y.; Izzo, L., “GRB 130609B: theoretical redshift estimation”, 2013, GCN 14888, 1;
- Ruffini, R.; Bianco, C. L.; Enderli, M.; Muccino, M.; Penacchioni, A. V.; **Pisani, G. B.**; Rueda, J. A.; Sahakyan, N.; Wang, Y.; Izzo, L., “GRB 130427A: predictions about the occurrence of a supernova”, 2013, GCN 14526, 1;
- Ruffini, R.; Izzo, L.; **Pisani, G. B.**; Bianco, C. L., “GRB 121217A theoretical estimate of redshift and of supernova occurrence”, 2012, GCN 14095, 1.