

IL NUOVO CIMENTO

volume 28 C

serie 2

numero 3

maggio-giugno 2005

NIFCAS 28(3) 237-470 (2005)

sommario di questo fascicolo

pag.

237 L. AMATI, S. COVINO, B. GENDRE and L. PIRO – Gamma-Ray Bursts in the Afterglow Era: 4th Workshop

DOI: [10.1393/ncc/i2005-10154-9](https://doi.org/10.1393/ncc/i2005-10154-9)

PART 1: Global properties of GRBs

243 F. FRONTERA – The GRB prompt emission from X- to gamma-rays

DOI: [10.1393/ncc/i2005-10033-5](https://doi.org/10.1393/ncc/i2005-10033-5)

251 L. AMATI – The correlation between peak energy and isotropic radiated energy in GRBs

DOI: [10.1393/ncc/i2005-10034-4](https://doi.org/10.1393/ncc/i2005-10034-4)

259 S. MEREGHETTI and D. GÖTZ – Two years of GRB localizations with the INTEGRAL Burst Alert System

DOI: [10.1393/ncc/i2005-10035-3](https://doi.org/10.1393/ncc/i2005-10035-3)

265 C. WIGGER, W. HAJDAS, K. ARZNER, M. GÜDEL and A. ZEHNDER – Polarization from GRB021206: No constraints from reanalysis of RHESSI data

DOI: [10.1393/ncc/i2005-10036-2](https://doi.org/10.1393/ncc/i2005-10036-2)

271 G. BJÖRNSSON, E. H. GUDMUNDSSON and G. JÓHANNESSON – Energy injection episodes in GRBs: The case of GRB 021004

DOI: [10.1393/ncc/i2005-10037-1](https://doi.org/10.1393/ncc/i2005-10037-1)

275 L. BORGONOVO, F. FRONTERA, C. GUIDORZI, E. MONTANARI and P. SOFFITTA – Autocorrelation analysis of GRBM–Beppo-SAX burst data

DOI: [10.1393/ncc/i2005-10038-0](https://doi.org/10.1393/ncc/i2005-10038-0)

279 D. CARTURAN, C. GUIDORZI, E. MONTANARI, F. FRONTERA and L. AMATI – The BeppoSAX/GRBM catalog of GRBs: Current status

DOI: [10.1393/ncc/i2005-10039-y](https://doi.org/10.1393/ncc/i2005-10039-y)

pag.

- 283** F. DAIGNE and R. MOCHKOVITCH – The low-luminosity tail of the GRB distribution: The case of GRB 980425
DOI: [10.1393/ncc/i2005-10041-5](https://doi.org/10.1393/ncc/i2005-10041-5)
- 287** A. DE UGARTE POSTIGO, J. GOROSABEL, A. J. CASTRO-TIRADO, G. JÓHANNESON, G. BJÖRNSSON, E. H. GUDMUNDSSON, M. BREMER, J. M. CASTRO CERÓN, S. GUZYI, M. JELÍNEK and D. PÉREZ-RAMÍREZ ON BEHALF OF A LARGER COLLABORATION – Modelling GRB 021004 by multiple energy injections
DOI: [10.1393/ncc/i2005-10042-4](https://doi.org/10.1393/ncc/i2005-10042-4)
- 291** I. HORVÁTH, J. P. NORRIS, J. D. SCARGLE and L. G. BALÁZS – Preliminary results of the analysis of the BATSE TTE data
DOI: [10.1393/ncc/i2005-10043-3](https://doi.org/10.1393/ncc/i2005-10043-3)
- 295** Z. BAGOLY, I. HORVÁTH, L. G. BALÁZS, L. BORGONOVO, S. LARSSON, A. MÉSZÁROS and F. RYDE – Principal-Component Analysis of Gamma-Ray Bursts' Spectra
DOI: [10.1393/ncc/i2005-10045-1](https://doi.org/10.1393/ncc/i2005-10045-1)
- 299** K. HURLEY, M. BRIGGS, R. M. KIPPEN, C. KOUVELIOTOU, C. MEEGAN G. FISHMAN, T. CLINE, J. TROMBKA, T. MCCLANAHAN, M. BOER, B. STERN, J. KOMMERS, E. MAZETS, S. GOLENETSKII, J. GOLDSTEN, M. FEROCI, F. FRONTERA, C. GUIDORZI, E. MONTANARI, W. LEWIN, S. SINHA and S. SEETHA – The interplanetary network supplements to the BATSE 5B and untriggered burst catalogs
DOI: [10.1393/ncc/i2005-10044-2](https://doi.org/10.1393/ncc/i2005-10044-2)
- 303** G. GHIRLANDA, G. GHISELLINI, D. LAZZATI and C. FIRMANI – The updated $E_{\text{peak}}-E_{\gamma}$ correlation in GRBs
DOI: [10.1393/ncc/i2005-10046-0](https://doi.org/10.1393/ncc/i2005-10046-0)
- 307** C. GUIDORZI, F. FRONTERA, E. MONTANARI, F. ROSSI, L. AMATI, A. GOMBOC, K. HURLEY and C. G. MUNDELL – The GRB variability/peak luminosity correlation: New results
DOI: [10.1393/ncc/i2005-10047-y](https://doi.org/10.1393/ncc/i2005-10047-y)
- 311** A. MÉSZÁROS, Z. BAGOLY, S. KLOSE, F. RYDE, S. LARSSON L. G. BALÁZS, I. HORVÁTH and L. BORGONOVO – On the origin of the dark gamma-ray bursts
DOI: [10.1393/ncc/i2005-10048-x](https://doi.org/10.1393/ncc/i2005-10048-x)
- 315** R. MOCHKOVITCH and M. HAFIZI – The time lag-luminosity relation: A consequence of the Amati relation?
DOI: [10.1393/ncc/i2005-10049-9](https://doi.org/10.1393/ncc/i2005-10049-9)
- 319** G. PIZZICHINI, P. FERRERO, M. GENGHINI, F. GIANOTTI and M. TOPINKA – Towards the $E_{\text{peak}}^{\text{rest}}-E_{\text{iso}}$ correlation in GRBs in the BATSE Catalog: A progress report
DOI: [10.1393/ncc/i2005-10050-4](https://doi.org/10.1393/ncc/i2005-10050-4)
- 323** A. RAU, A. VON KIENLIN, K. HURLEY and G. G. LICHTI – The sample of INTEGRAL SPI-ACS gamma-ray bursts
DOI: [10.1393/ncc/i2005-10051-3](https://doi.org/10.1393/ncc/i2005-10051-3)

pag.

- 327** A. RAU and J. GREINER – A survey for GRB orphan afterglows
DOI: [10.1393/ncc/i2005-10052-2](https://doi.org/10.1393/ncc/i2005-10052-2)
- 331** S. ROSSI, A. MORETTI, G. GHIRLANDA, G. TAGLIAFERRI, T. BELLONI, S. CAMPANA and G. CHINCARINI – The GRBs simultaneously detected by *BeppoSAX* and *BATSE*
DOI: [10.1393/ncc/i2005-10053-1](https://doi.org/10.1393/ncc/i2005-10053-1)
- 335** F. RYDE and M. BATTELINO – The conspicuous gamma-ray burst of 30 May 1996
DOI: [10.1393/ncc/i2005-10054-0](https://doi.org/10.1393/ncc/i2005-10054-0)
- 339** T. SAKAMOTO, D. Q. LAMB, N. KAWAI, A. YOSHIDA, C. GRAZIANI, E. E. FENIMORE, T. Q. DONAGHY, M. MATSUOKA, M. SUZUKI, G. RICKER, J.-L. ATTEIA, Y. SHIRASAKI, T. TAMAGAWA, K. TORII, Y. NAKAGAWA, M. GALASSI, J. DOTY, R. VANDERSPEK, G. B. CREW, J. VILLASENOR, N. BUTLER, J. G. JERNIGAN, C. BARRAUD, M. BORE, J.-P. DEZALAY, J.-F. OLIVE, K. HURLEY, S. E. WOOSLEY, G. PIZZICHINI and HETE-2 SCIENCE TEAM – Global characteristics of X-ray flashes and X-ray rich GRBs observed by HETE-2
DOI: [10.1393/ncc/i2005-10055-y](https://doi.org/10.1393/ncc/i2005-10055-y)
- 343** R. SATO, T. SAKAMOTO, N. KAWAI, A. YOSHIDA, M. MATSUOKA, Y. SHIRASAKI, T. TAMAGAWA, M. SUZUKI, Y. NAKAGAWA, G. R. RICKER, D. Q. LAMB, J.-L. ATTEIA, C. GRAZIANI, R. VANDERSPEK, G. B. CREW, J. VILLASENOR, E. E. FENIMORE and HETE-2 SCIENCE TEAM – HETE-2 localization and observation of the gamma-ray burst GRB 020813
DOI: [10.1393/ncc/i2005-10056-x](https://doi.org/10.1393/ncc/i2005-10056-x)
- 347** MAARTEN SCHMIDT – Are durations of weak gamma-ray bursts reliable?
DOI: [10.1393/ncc/i2005-10057-9](https://doi.org/10.1393/ncc/i2005-10057-9)
- 351** M. V. ULANOV, S. V. GOLENETSKII, D. D. FREDERIKS, R. L. APTEKAR, E. P. MAZETS, A. A. KOKOMOV and V. D. PALSHIN – Fast spectral variability of GRBs with known redshifts
DOI: [10.1393/ncc/i2005-10058-8](https://doi.org/10.1393/ncc/i2005-10058-8)
- 355** P. VERES, I. HORVÁTH and L. G. BALÁZS – Analysis of the *BATSE* continuous *MER* data
DOI: [10.1393/ncc/i2005-10059-7](https://doi.org/10.1393/ncc/i2005-10059-7)
- 359** L. VETERE, E. MASSARO, E. COSTA and P. SOFFITTA – Slow components in the X-ray light curves of Gamma-Ray Bursts
DOI: [10.1393/ncc/i2005-10060-2](https://doi.org/10.1393/ncc/i2005-10060-2)
- PART 2: Models for GRBs
- 365** D. Q. LAMB, T. Q. DONAGHY and C. GRAZIANI – Jet models of X-Ray Flashes
DOI: [10.1393/ncc/i2005-10062-0](https://doi.org/10.1393/ncc/i2005-10062-0)
- 373** T. PIRAN – The beaming factor and other open issues in GRB Jets
DOI: [10.1393/ncc/i2005-10063-y](https://doi.org/10.1393/ncc/i2005-10063-y)

pag.

- 381** K. NOGUCHI, E. LIANG and K. NISHIMURA – Self-consistent radiative effect on relativistic electromagnetic particle acceleration
[DOI: 10.1393/ncc/i2005-10065-9](https://doi.org/10.1393/ncc/i2005-10065-9)
- 387** E. M. ROSSI – Structure of gamma ray burst jets
[DOI: 10.1393/ncc/i2005-10066-8](https://doi.org/10.1393/ncc/i2005-10066-8)
- 393** N. VLAHAKIS – Magnetic fireball: The acceleration efficiency of hydromagnetic outflows in GRB sources
[DOI: 10.1393/ncc/i2005-10067-7](https://doi.org/10.1393/ncc/i2005-10067-7)
- 399** M. A. ALOY, H.-TH. JANKA and E. MÜLLER – Producing short GRBs from coalescing compact binaries
[DOI: 10.1393/ncc/i2005-10068-6](https://doi.org/10.1393/ncc/i2005-10068-6)
- 403** T. Q. DONAGHY, C. GRAZIANI and D. Q. LAMB – Unifying XRFs and GRBs with a Fisher-shaped universal jet model
[DOI: 10.1393/ncc/i2005-10069-5](https://doi.org/10.1393/ncc/i2005-10069-5)
- 407** T. Q. DONAGHY – The importance of off-axis beaming in jet models
[DOI: 10.1393/ncc/i2005-10070-0](https://doi.org/10.1393/ncc/i2005-10070-0)
- 411** C. B. HEDEDAL, T. HAUGBØLLE, J. T. FREDERIKSEN and Å. NORDLUND – *In situ* particle acceleration in collisionless shocks
[DOI: 10.1393/ncc/i2005-10071-y](https://doi.org/10.1393/ncc/i2005-10071-y)
- 415** Y. F. HUANG, T. LU and K. S. CHENG – GRB afterglows: Deep Newtonian phase and its application
[DOI: 10.1393/ncc/i2005-10141-2](https://doi.org/10.1393/ncc/i2005-10141-2)
- 419** A. JANIUK, B. CZERNY, R. PERNA and T. DI MATTEO – Hyper-Eddington accretion in GRB
[DOI: 10.1393/ncc/i2005-10073-9](https://doi.org/10.1393/ncc/i2005-10073-9)
- 423** Y. MIZUNO, S. YAMADA, S. KOIDE and K. SHIBATA – General relativistic magnetohydrodynamic simulations of collapsars: Rotating black hole cases
[DOI: 10.1393/ncc/i2005-10074-8](https://doi.org/10.1393/ncc/i2005-10074-8)
- 427** R. MOCHKOVITCH, F. DAIGNE, E. NAKAR and E. ROSSI – Prompt and early afterglow emission in GRBs
[DOI: 10.1393/ncc/i2005-10075-7](https://doi.org/10.1393/ncc/i2005-10075-7)
- 431** E. NAKAR and T. PIRAN – Early afterglow from a reverse shock as a tracer of the prompt gamma-ray light curve
[DOI: 10.1393/ncc/i2005-10076-6](https://doi.org/10.1393/ncc/i2005-10076-6)
- 435** K.-I. NISHIKAWA, P. HARDEE, C. B. HEDEDAL, G. RICHARDSON, H. SOL, R. PREECE and G. J. FISHMAN – Particle acceleration, magnetic field generation, and emission in relativistic pair jets
[DOI: 10.1393/ncc/i2005-10077-5](https://doi.org/10.1393/ncc/i2005-10077-5)

pag.

- 439** F. PENG, A. KÖNIGL and J. GRANOT – Two-component jet models of gamma-ray burst sources
DOI: [10.1393/ncc/i2005-10078-4](https://doi.org/10.1393/ncc/i2005-10078-4)
- 443** J. POUTANEN and B. E. STERN – Gamma-ray burst spectra from continuously accelerated electrons
DOI: [10.1393/ncc/i2005-10079-3](https://doi.org/10.1393/ncc/i2005-10079-3)
- 447** P. H. TAM, K. S. CHENG, X. Y. WANG, Y. F. HUANG and J. C. S. PUN – Gamma-ray burst afterglows with cylindrical jet geometry
DOI: [10.1393/ncc/i2005-10080-x](https://doi.org/10.1393/ncc/i2005-10080-x)
- 451** K. TOMA, R. YAMAZAKI and T. NAKAMURA – A possible origin of bimodal duration distribution of gamma-ray bursts
DOI: [10.1393/ncc/i2005-10081-9](https://doi.org/10.1393/ncc/i2005-10081-9)
- 455** M. TOPINKA, M. KARLICKÝ and R. HUDEC – Simulation of magnetic field dissipation in gamma-ray bursts
DOI: [10.1393/ncc/i2005-10082-8](https://doi.org/10.1393/ncc/i2005-10082-8)
- 459** J. WIERSMA and A. ACHTERBERG – Magnetic field generation in relativistic shocks
DOI: [10.1393/ncc/i2005-10083-7](https://doi.org/10.1393/ncc/i2005-10083-7)
- 463** R. YAMAZAKI, K. IOKA, T. NAKAMURA and K. TOMA – A unified model of short and long gamma-ray bursts, X-ray-rich gamma-ray bursts, and X-ray flashes
DOI: [10.1393/ncc/i2005-10084-6](https://doi.org/10.1393/ncc/i2005-10084-6)
- 467** A. J. VAN DER HORST, R. A. M. J. WIJERS and E. ROL – Broadband modeling of gamma-ray burst afterglows
DOI: [10.1393/ncc/i2005-10085-5](https://doi.org/10.1393/ncc/i2005-10085-5)

The talk videos are available at <http://grb.rm.iasf.cnr.it/grbconf2004/>