

## PUBLICATIONS

### Contributions to books

1. M. J. Ablowitz, B. Prinari  
**Non linear Schrödinger systems: continuous and discrete**  
*Scholarpedia*  
E. M. Izhikevich, Ed.  
Scholarpedia 3(8):5561 (2008) ISSN 1941-6016
2. A. Rossi  
**Il mutamento dell'immagine ideologica di Einstein in Italia durante il fascismo**  
*Sulla Filosofia Italiana del Novecento*  
Minazzi F. et al., Eds.  
Franco Angeli, Milano (2008)
3. A. Rossi  
**L'eredità del pensiero di Thom**  
*René Thom: prevedere non è spiegare*  
G. De Cecco, G. Del Re, A. Rossi, Eds.  
Quaderno di Matematica, Lecce (2008), ISBN:978-88-8305-063-3
4. A. M. Tafuro, F. De Tomasi, M. R. Perrone  
**Remote Sensing of Aerosols by Sunphotometers and Lidar Techniques**  
*Advanced Environmental Monitoring*  
J. Kim Young, U. Platt, Eds.  
Springer, Berlin (2008), ISBN:978-1-4020-6363-3

### Scientific journals

#### Experiment

Astroparticle physics

1. J. Abraham et al. (Pierre Auger Collaboration)  
**Correlation of the highest-energy cosmic rays with the positions of nearby active galactic nuclei**  
Astroparticle Phys. 29 (2008) 188
2. J. Abraham et al. (Pierre Auger Collaboration)  
**Upper Limit on the Cosmic-Ray Photon Flux Above  $10^{19}$  eV Using the Surface**

**Detector of the Pierre Auger Observatory**

Astroparticle Phys. 29 (2008) 243

3. J. Abraham et al. (Pierre Auger Collaboration)  
**Upper Limit on the Diffuse Flux of Ultrahigh Energy of Tau Neutrinos from the Pierre Auger Observatory**  
Phys. Rev. Lett. 100 (2008) 211101
4. J. Abraham et al. (Pierre Auger Collaboration)  
**Observation of the suppression of the flux of cosmic rays above  $4 \times 10^{19}$  eV**  
Phys. Rev. Lett. 101 (2008) 061101

Astrophysics

1. A. Blanco, M. D'Elia, D. Licchelli, V. Orofino, S. Fonti, S. Montanaro  
**The search for ancient life on Mars and the IR spectroscopy of Earth analogues**  
Mem. S. A. It. Suppl. 12 (008) 133
2. D. Licchelli, A. Blanco, M. Bochicchio, A. Bernardo, S. Fonti, M. D'Elia  
**ASTRONET: planetary observations in remote collaborative web environment**  
Mem. S. A. It. Suppl., Vol. 12 (2008) 28
3. G. A. Marzo, T. L. Roush, A. Blanco, S. Fonti, V. Orofino  
**Statistical exploration and volume reduction of planetary remote sensing spectral data**  
J. Geophys. Res. 113 (2008) E12009, doi:10.1029/2008JE003219

Condensed matter

1. A. P. Caricato, M. Lomascolo, A. Luches, F. Mandoj, M. G. Manera,  
**MAPLE deposition of methoxy Ge triphenylcorrole thin films**  
Appl. Phys. A 93 (2008) 651
2. D. Valerini, A. P. Caricato, M. Lomascolo, F. Romano, A. Taurino, T. Tunno, M. Martino  
**Zinc oxide nanostructures grown by pulsed laser deposition**  
Appl. Phys. A 93 (2008) 729

Elementary particle physics

1. G. Aad et al. (ATLAS collaboration)  
**The ATLAS Experiment at the CERN Large Hadron Collider**  
Journal of Instrumentation 3:S08003 (2008) 437
2. C. Adorisio et al. (ATLAS Muon Collaboration)  
**System test of the ATLAS muon spectrometer in the H8 beam at the CERN SPS**  
Nucl. Inst. and Meth. in Phys. Research A593 (2008) 232
3. G. Aielli et al.  
**Status of the ATLAS level-1 central trigger and muon barrel trigger and first results from cosmic-ray data.**  
IEEE Transactions on Nuclear Science 55 1 (2008) 139
4. F. Ambrosino et al. (KLOE Collaboration)  
**Measurement of the charged kaon lifetime with the KLOE detector**  
JHEP 0801 (2008) 073

5. F. Ambrosino et al. (KLOE Collaboration)  
**Measurement of the absolute branching ratios for semileptonic  $K^\pm$  decays with the KLOE detector**  
JHEP 0802 (2008) 098
6. F. Ambrosino et al. (KLOE Collaboration)  
 **$|V_{us}|$  and lepton universality from kaon decays with the KLOE detector**  
JHEP 0804 (2008) 059
7. F. Ambrosino et al. (KLOE Collaboration)  
**Determination of  $\eta \rightarrow \pi^+ \pi^- \pi^0$  Dalitz plot slopes and asymmetries with the KLOE detector**  
JHEP 0805 (2008) 006
8. F. Ambrosino et al. (KLOE Collaboration)  
**A study of the radiative  $K_L \rightarrow \pi^\pm e^\mp \nu_\gamma$  decay and search for direct photon emission with the KLOE detector**  
Eur. Phys. Jour. C 55 (2008) 539
9. F. Ambrosino et al. (KLOE Collaboration)  
**Measurement of the branching ratio of the  $K^\pm \rightarrow \pi^+ \pi^0 (\gamma)$  decay with the KLOE detector**  
Phys. Lett. B 666 (2008) 305
10. T. Lari et al.  
**Collider aspects of flavor physics at high Q**  
Eur. Phys. Jour. C 57 (2008) 183-307
11. J.M. Link et al. (FOCUS collaboration)  
**Study of Cabibbo Suppressed Decays of the D<sup>+</sup>(s) Charmed-Strange Meson involving a K<sup>0</sup>(s)**  
Phys. Lett. B 660 (2008) 147
12. J.M. Link et al. (FOCUS collaboration)  
**Search for a pentaquark decaying to  $\Xi^- \pi^-$**   
Phys. Lett. B 661 (2008) 14
13. A. Sidoti et al.  
**The ATLAS muon trigger Slice**  
IEEE Transactions on Nuclear Science, 55 1 (2008) 151

#### Instrumentation and technical advances

1. L. Cultrera, G. Gatti, P. Miglietta, F. Tazzioli, A. Perrone  
**The role of the adsorbed gases on the photoelectron performance of Mg-based photocadods**  
Nucl. Instr. and Meth. in Phys. Res. A, 587 (2008) 7
2. R. Khandelwal, A. P. Singh, A. Kapoor, S. Grigorescu, P. Miglietta, N. E. Stankova, A. Perrone  
**Effects of Deposition Temperature on the Structural and Morphological Properties of Thin ZnO Films Fabricated by Pulsed Laser Deposition**  
Optics and Laser Technology, 40 (2008) 247

#### Interdisciplinary applications

1. S. Acquaviva, E. D'Anna, M. L. De Giorgi, A. Della Patria, L. Pezzati  
**Optical characterization of pigments by reflectance spectroscopy in support of UV laser cleaning treatments**  
*Applied Physics A* 92 (2008) 223
2. P. Alifano, A. Lorusso, V. Nassisi, A. Talà, S. M. Tredici  
**Application of XeCl308nm excimer laser radiation to mutagenesis of industrial microorganisms**  
*Rad. Eff. Def. Solids* 163 (2008) 299
3. G. Caretto, L. Martina, V. Nassisi, M. V. Siciliano  
**Behavior of photocathodes on superficial modification by electrical breakdown**  
*Nucl. Inst. Meth. Phys. Res. B* 266 (2008) 2157
4. G. Caretto, L. Martina, V. Nassisi and M.V. Siciliano  
**Temporal behavior of photoemission for yttrium cathodes**  
*Rad. Eff. Def. Solids* 163 (2008) 479
5. G. Caretto, P. Miglietta, V. Nassisi, A. Perrone, M. V. Siciliano  
**Photoelectron performance of a Y thin film and a Y smooth bulk cathodes**  
*Rad. Eff. Def. Solids* 163 (2008) 365
6. L. Giuffrida, L. Torrisi, A. Czarnecka, J. Wolowsky, G. Quarta, L. Calcagnile, A. Lorusso, V. Nassisi  
**Ge laser-generated plasma for ion implantation**  
*Rad. Eff. Def. Solids* 163 (2008) 401
7. J. Kràsa, K. Jungwirth, S. Gammino, E. Krousky, L. Laska, A. Lorusso, V. Nassisi, M. Pfeifer, K. Rohlena, L. Torrisi, J. Ullschmied, A. Velyhan  
**Partial currents of ion species in an expanding laser-created plasma**  
*Vacuum* 83 (2008) 180
8. J. Kràsa, L. Laska, K. Rohlena, A. Velyhan, A. Lorusso, V. Nassisi, A. Czarnecka, P. Parys, L. Ryć, J. Wolowski  
**Effects of 2 mass % Si admixture in a laser-produced Fe plasma**  
*Appl. Phys. Lett.* 93 (2008) 191503
9. A. Lorusso, V. Nassisi, M. V. Siciliano  
**Fast capacitive probe for electromagnetic pulse diagnostic**  
*Rev. Sci. Instr.* 79 (2008) 064702
10. A. Lorusso, V. Nassisi, M. V. Siciliano, V. Vergine  
**Study of soft X-ray induced by plasma laser**  
*Rad. Eff. Def. Solids* 163 (2008) 441
11. A. Lorusso, V. Nassisi, L. Velardi, G. Congedo  
**Si nanocrystals formation by a new ion implantation device**  
*Nucl. Instrum. Meth. B* 266 (2008) 2486
12. A. Lorusso, L. Velardi, V. Nassisi, F. Paladini, A. M. Visco, N. Campo, L. Torrisi, D. Margarone, L. Giuffrida, A. Rainò  
**Polymer processing by a low energy ion accelerator**  
*Nucl. Instrum. Meth. B* 266 (2008) 2490
13. A. Lorusso, L. Velardi, V. Nassisi  
**Characterization of laser-produced plasma of metal targets**  
*Rad. Eff. Def. Solids* 163 (2008) 429

14. A. Lorusso, L. Velardi, V. Nassisi, L. Torrisi, D. Margarone, A. Mezzasalma, A. Rainò  
**Characteristic modification of UHMWPE by laser-assisted ion implantation**  
*Rad. Eff. Def. Solids* 163 (2008) 447
15. A. Lorusso, V. Nassisi, A. Buccolieri, G. Buccolieri, A. Castellano, A. L. Leo, M. Di Giulio, L. Torrisi, F. Caridi, A. Borrielli  
**Laser ablation threshold of cultural heritage metal**  
*Rad. Eff. Def. Solids* 163 (2008) 325-329
16. A. Lorusso, F. Paladini, V. Nassisi, L. Torrisi, A. M. Visco, N. Campo  
**Comparison of the laser effects induced on on ultra-high molecular weight polyethylene**  
*Rad. Eff. Def. Solids* 163 (2008) 435
17. L. Torrisi, A. Lorusso, V. Nassisi, A. Picciotto  
**Characterization of Laser Ablation of Polymethylmethacrylate at Different Laser Wavelengths**  
*Rad. Eff. Def. Solids* 163 (2008) 179
18. L. Velardi, A. Lorusso, V. Nassisi, G. Congedo  
**Generation of Si nanocrystals by ion implantation utilizing a LIS device**  
*Rad. Eff. Def. Solids* 163 (2008) 491

### Physics of the atmosphere

1. A. Bergamo, A. M. Tafuro, S. Kinne, F. De Tomasi, M. R. Perrone  
**Monthly averaged anthropogenic aerosol direct radiative forcing over the Mediterranean based on AERONET aerosol properties**  
*Atm. Chem. and Phys.* 8 (2008) 6995
2. A. Papayannis et al.  
**Systematic LIDAR observations of Saharan dust over Europe in the frame of EARLINET (2000-2002)**  
*Journal of Geophysical Research-Atmosphere* 113 (2008) D10204,17
3. M. Santese, F. De Tomasi, M.R. Perrone  
**Advection patterns and aerosol optical and microphysical properties by AERONET over south-east Italy in the central mediterranean**  
*Atm. Chem. and Phys.* 8 (2008) 1881
4. X. Wang et al.  
**Volcanic dust characterization by EARLINET during Etna's eruption in 2001-2002**  
*Atm. Env.* 42 (2008) 893

## Theory

### Astrophysics and cosmology

1. S. Capozziello, M. De Laurentis, F. De Paolis, G. Ingrosso, A. A. Nucita  
**Gravitational waves from hyperbolic encounters**  
*Mod. Phys. Lett. A* 23 (2008) 99

2. A. A. Nucita, F. De Paolis, G. Ingrosso, S. Carpano, M. Guainazzi  
**XMM-Newton and Chandra observations of the globular cluster NGC 6388**  
Astronomy and Astrophysics 478 (2008) 763
  3. A. F. Zakharov, F. De Paolis, G. Ingrosso, A. A. Nucita, A. Qadir  
**Studies of strong gravitational fields near super-massive black hole horizons with space missions**  
Advances in Space Research 41 (2008) 2061
- Elementary particle and nuclear physics
1. R. Armillis, C. Corianò, M. Guzzi, S. Morelli  
**Axions and Anomaly-Mediated Interactions: The Green-Schwarz and Wess-Zumino Vertices at Higher Orders and g-2 of the muon**  
JHEP 0810 (2008) 034
  2. R. Armillis, C. Corianò, M. Guzzi  
**Trilinear Anomalous Gauge Interactions from Intersecting Branes and the Neutral Currents Sector**  
JHEP 0805 (2008) 015
  3. M. Baldo, C. Maieron  
**Neutron matter at low density and the unitary limit**  
Phys. Rev. C 77 (2008) 015801
  4. F. Bazzocchi, S. Morisi, M. Picariello.  
**Embedding A(4) into left-right flavor symmetry: Tribimaximal neutrino mixing and fermion hierarchy**  
Phys. Lett. B659 (2008) 628
  5. M. Beccaria  
**On the strong coupling expansion in the su(1|1) sector of N=4 SYM**  
JHEP 0806 (2008) 063
  6. M. Beccaria  
**The generalized scaling function of AdS/CFT and semiclassical string theory**  
JHEP 0807 (2008) 082
  7. M. Beccaria, F. Catino  
**Large spin expansion of the long-range Baxter equation in the sl(2) sector of N=4 SYM.**  
JHEP 0801 (2008) 067
  8. M. Beccaria, F. Catino  
**Sum rules for higher twist sl(2)operators in N=4 SYM**  
JHEP 0806 (2008) 103
  9. M. Beccaria, V. Forini  
**Reciprocity of gauge operators in N=4 SYM**  
JHEP 0806 (2008) 077
  10. A. Cafarella, C. Corianò, M. Guzzi  
**Precision Studies of the NNLO DGLAP Evolution at the LHC with CANDIA**  
Comput. Phys. Comm. 179 (2008) 665
  11. M. Ciafaloni, P. Ciafaloni, D. Comelli  
**Electroweak double-logs at small x**  
JHEP 0805 (2008) 039

12. C. Corianò, A. E. Faraggi, M. Guzzi  
**Searching for Extra Z-prime from Strings and Other Models at the LHC with Leptoproduction**  
Phys. Rev. D 78 (2008) 015012
13. C. Corianò, A. E. Faraggi, M. Guzzi  
**A Novel string derived Z-prime with stable proton, light-neutrinos and R-parity violation**  
Eur. Phys. J. C 53 (2008) 421
14. C. Corianò, M. Guzzi, S. Morelli  
**Unitarity bounds for gauged axionic interactions and the Green-Schwarz mechanism**  
Eur. Phys. J. C 55 (2008) 629
15. C. Corianò, S. Morelli  
**Models 2. A  $SU(3)C \times SU(2)W \times U(1)Y \times U(1)B$  model and its signature at the LHC**  
Nucl. Phys. B 789 (2008) 133
16. S. De Leo, P. Rotelli  
**Bound state inequality for high mass exchanges in a scalar field model**  
Eur. Phys. J. C 53 (2008) 659
17. S. De Leo, P. Rotelli  
**Fermion-fermion bound state condition for scalar exchanges**  
Phys. Rev. D 78 (2008) 025006
18. S. De Leo, P. Rotelli  
**Localized beams and dielectric barriers**  
Jour. of Optics A 10 (2008) 115001
19. M. Martini, C. Maieron, V. De Donno, G. Co'  
**A particle-hole model for hypernuclei**  
Nucl. Phys. A 813 (2008) 212
20. D. Montanino, M. Picariello, J. Pulido  
**Probing neutrino magnetic moment and unparticle interactions with Borexino**  
Phys. Rev. D 77 (2008) 093011
21. M. Picariello  
**Neutrino CP violating parameters from nontrivial quark-lepton correlation: A  $S(3) \times GUT$  model**  
Int. J. Mod. Phys. A 23 (2008) 4435
22. M. Picariello, B. C. Chauhan, J. Pulido, E. Torrente-Lujan  
**Predictions from non trivial quark-lepton complementarity**  
Int. J. Mod. Phys. A 22 (2008) 5860
23. M. Raidal et al.  
**Flavour physics of leptons and dipole moments**  
Eur. Phys. J. C 57 (2008) 13

### Foundations and history of physics

1. C. Garola  
**Physical Propositions and Quantum Languages**  
Int. J. Theor. Phys. 47 (2008) 90

2. A. Rossi  
**Il processo a Galileo: una questione ancora aperta?**  
*Nuova Civiltà delle Macchine* XXVI (2008) 2  
 Mathematical, non-linear and statistical physics
1. A. Arneodo et al.  
**Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows**  
*Phys. Rev. Lett.* 100 (2008) 254504
2. L. Biferale, E. Bodenschatz, M. Cencini, A.S. Lanotte, N.T. Ouellette, F. Toschi, H. Xu,  
**Lagrangian Structure Functions in Turbulence: A Quantitative Comparison between Experiment and Direct Numerical Simulation**  
*Phys. Fluids* 20 (2008) 065103
3. L. Biferale, A.S. Lanotte, F. Toschi  
**Statistical behaviour of isotropic and anisotropic fluctuations in homogeneous turbulence**  
*Physica D* 237 (2008) 1969
4. G. Landolfi  
**Weyl-ordered series form for the angle variable of the time-dependent oscillator**  
*J. Phys. A: Math. Theor.* 41 185302 (2008)
5. M. Lo Schiavo, B. Prinari, A. V. Serio  
**Analysing Quality with Generalized Kinetic Models**  
*Math. Comp. Model.* 47 (2008) 11501166
6. B. G. Konopelchenko  
**Corrugated surfaces with slow modulations and quasiclassical Weierstrass representation**  
*J. Nonlinear Math. Phys.* 15 (2008) 227
7. T. Maiolo, L. Martina, G. Ruggeri, G. Soliani  
**Recent Aspect of Entanglement with Applications in Quantum Optics and Quantum Information Theory**  
*Adv. Studies Theor. Phys.* 2 (2008) 333
8. L. Martina, A. Protopopov, V. Verbus  
**Where do braid statistics and discrete motion meet each other?**  
*J. Nonlinear Math. Phys.* 15 (2008) 343
9. K. Maruno, B. Prinari  
**Determinant and Pfaffian solutions of the strong coupling limit of integrable discrete NLS systems**  
*Inv. Probl.* 24 (2008) 055011
10. G. Scolarici, L. Solombrino  
**Quasistationary quaternionic Hamiltonians and complex stochastic maps**  
*J. Phys. A* 41, 244024 (2008)

## Proceedings of conferences and workshops

# Experiment

## Astroparticle physics

1. P. Bernardini for the ARGO-YBJ Collaboration  
**ARGO-YBJ experiment in Tibet**  
*International Conference on Topics in Astroparticle and Underground Physics (TAUP 2007), Sendai, Japan, September 2007*  
Journal of Physics: Conference Series 120 (2008) 062022
2. I. De Mitri, P. Di Bari  
**Astroparticle and Neutrino Physics**  
*Incontri di Fisica delle Alte Energie, Bologna, March 2008*  
Nuovo Cimento 123 B (2008) 869
3. I. De Mitri  
**Proton-air inelastic cross section measurement with ARGO-YBJ**  
*30th International Cosmic Ray Conference, Merida, Mexico, 2007*  
Proceedings Vol. 4 (HE part 1), pag. 675
4. G. Marsella for the ARGO-YBJ Collaboration  
**Study of cosmic ray shower front and time structure with ARGO-YBJ**  
*30th International Cosmic Ray Conference, Merida, Mexico, 2007*  
Proceedings Vol. 4 (HE part 1), pages 139
5. D. Martello for the ARGO-YBJ Collaboration  
**First results from the ARGO-YBJ experiment**  
*30th International Cosmic Ray Conference, Merida, Mexico, 2007*  
Proceedings Vol. 3 (OG part 2), pages 1499
6. L. Perrone for the Pierre Auger Collaboration  
**Measurement of the UHECR energy spectrum from hybrid data of the Pierre Auger Observatory**  
*30th International Cosmic Ray Conference, Merida, Mexico, 2007*  
Proceedings Vol. 4 (HE part 1), pag. 331

## Astrophysics

1. M. D'Elia, A. Blanco, V. Orofino, S. Fonti, S. Montanaro  
**Alterazione acquosa su Marte: studi di laboratorio su analoghi terrestri**  
*XCIV Congresso Nazionale della Società Italiana di Fisica*  
Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 174, (2008)
2. S. Fonti, S. Montanaro, R. Politi, A. Blanco, A. C. Marra, G. A. Marzo, V. Orofino  
**Reflectance spectra of particulate mixtures in the near and medium infra-red spectral range: part II**  
*EGU General Assembly 2008.*  
Geophysical Research Abstracts, Vol. 10, EGU2008-A-08330, 2008; SRef-ID: 1607-7962/gra/EGU2008-A-08330
3. D. Licchelli, A. Blanco, M. Bochicchio, A. Bernardo, S. Fonti, M. D'Elia  
**Osservazioni astronomiche in remoto in ambiente web collaborativo**  
*XCIV Congresso Nazionale della Società Italiana di Fisica*  
Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 121, (2008)
4. D. Licchelli, A. Blanco, L. Ruggiero  
**Esperienze didattiche di meteorologia e climatologia**

5. S. Montanaro, S. Fonti, R. Politi, A. Blanco, A. C. Marra, G. A. Marzo, V. Orofino  
**Reflectance spectra of particulate mixtures in the near and medium infra-red spectral range: part I**  
*EGU General Assembly 2008*  
Geophysical Research Abstracts, Vol. 10, EGU2008-A-08119, 2008; SRef-ID: 1607-7962/gra/EGU2008-A-08119, EGU General Assembly

Condensed matter

1. A.P. Caricato, S. Capone, S. Epifani, M. Lomascolo, A. Luches, M. Martino, F. Romano, R. Rella, P. Siciliano, J. Spadavecchia, A. Taurino, T. Tunno, D. Valerini  
**Nanoparticle thin films deposited by MAPLE for sensor applications**  
*Advanced Laser Technologies, Balaton Lake, Hungary*  
Proceedings of SPIE vol. 6985 (2008), art. no. 69850H, DOI: 10.1117/12.786981.
2. S.A. Mulenko, Y.V. Kudryavtsev, N.T. Gorbachuk, A. Luches, A.P. Caricato, V.P. Veiko, V.A. Chuiko, A.A. Petrov  
**Deposition of films and layers for sensors with PLD and LIFT method**  
*Advanced Laser Technologies, Balaton Lake, Hungary*  
Proceedings of SPIE vol. 6985 (2008), art. no. 69850J, DOI: 10.1117/12.786988.

Elementary particles physics

1. M. Abolins et al. (The ATLAS Collaboration)  
**The ATLAS trigger: Commissioning with cosmic rays**  
*International Conference On Computing In High Energy And Nuclear Physics*  
J. Phys. Conf. Ser. 119 (2008) 022014
2. D. del Re, A. Ventura  
**Beyond Standard Model and Exotics: Experimental overview**  
*V Workshop Italiano sulla Fisica p-p ad LHC (Perugia, Italy, 30/1-2/2/2008)*  
Nuovo Cimento B 123 (2008) 517
3. E. Solfaroli et al.  
**First cosmic ray results of the RPC commissioning in the ATLAS cavern**  
*18-th Hadron Collider Physics Symposium, 20-26 May 2007, La Biodola, Isola d'Elba, Italy.*  
Nucl. Phys. B (Proc.Suppl.) 177-178 (2008) 335
4. S. Spagnolo et al.  
**Implementation of chamber misalignments and deformations in the ATLAS muon spectrometer description**  
*18-th Hadron Collider Physics Symposium, 20-26 May 2007, La Biodola, Isola d'Elba, Italy.*  
Nucl. Phys. B (Proc.Suppl.) 177-178 (2008) 339

Interdisciplinary applications

1. A. Lorusso, V. Nassisi, G. Accoto, M. V. Siciliano  
**Sonda capacitiva per la diagnostica degli impulsi elettromagnetici veloci**  
*XCIV Congr. Nazionale SIF, Genova 22-27 settembre 2008*  
Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 149
2. A. Lorusso, V. Nassisi, P. Esposito, M. V. Siciliano  
**Nuovo metodo per la caratterizzazione di raggi X prodotti da plasma**  
*XCIV Congr. Nazionale SIF, Genova 22-27 settembre 2008*  
Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 85

3. Lorusso, V. Nassisi, V. Nicolardi, F. Paladini, A. Rainò, L. Velardi, M. V. Siciliano  
**Laser irradiation of bio-material surfaces**  
*XCIV Congr. Nazionale SIF, Genova 22-27 settembre 2008*  
 Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 146
4. A. Lorusso, J. Krasa, V. Nassisi, L. Velardi  
**Caratterizzazione del plasma prodotto da ablazione laser UV di target monocristallini di Fe e Fe+2%Si**  
*XCIV Congr. Nazionale SIF, Genova 22-27 settembre 2008*  
 Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 207
5. A. Lorusso, V. Nassisi, P. Prete, N. Lovergine, L. Velardi  
**Sintesi di nanocristalli di Si in matrice di SiO<sub>2</sub> mediante plasma controllato indotto da laser ad eccimeri**  
*XCIV Congr. Nazionale SIF, Genova 22-27 settembre 2008*  
 Atti del XCIV Congresso Nazionale della Società Italiana di Fisica, p. 205

### Physics of the atmosphere

1. V. Bellantone, I. Carofalo, F. De Tomasi, M. R. Perrone, M. Santese, A. M. Tafuro, A. Turnone,  
**In Situ Samplings and Remote Sensing Measurements to Characterize Aerosol Properties over Southeast Italy**  
*Seventh International Symposium on Tropospheric Profiling: Needs and Technologies, Boulder, Colorado, USA, June 2006.*  
 Journal Of Atmospheric And Oceanic Technology, 25 (2008) 1341
2. I. Carofalo, P. Fermo, M. R. Perrone, A. Piazzalunga  
**Advection Patterns and Composition of TSP and PM<sub>2.5</sub> Samples over south-East Italy**  
*CET:2008*  
 Chem. Eng. Trans., 16, 2008, 185-192
3. F. De Tomasi, V. Bellantone, M. M. Miglietta, A. Moscatello, A. M. Tafuro, M. R. Perrone  
**The PBL growth in a peninsular site: a case study**  
*International Laser Radar Conference (ILRC)*  
 Proc. ILRC 2008, 24 (2008) 297
4. A.M. Tafuro, S. Kinne, A. Bergamo, De Tomasi F. and M.R. Perrone  
**Direct Radiative Effects of Sahara Dust Particles in the Central Mediterranean.**  
*International Laser Radar Conference (ILRC)*  
 Proc. of ILRC 2008, 24 (2008) 413
5. G. Pappardo et al.  
**Earlinet for long term observations of aerosol over Europe**  
*International Laser Radar Conference (ILRC)*  
 Proc. of ILRC 2008, 24 (2008) 711
6. M. Santese, A. Zakey, F. Giorgi, M. R. Perrone  
**Aerosol modeling for regional climate studies: Application to a dust event over a Mediterranean domain**  
*4th SPARC General Assembly, 31 August-5 September, 2008, Bologna, Italy,*  
 Proc. (2008) 358

## Theory

## Astrophysics and cosmology

1. A. F. Zakharov, V. N. Pervushin, F. De Paolis, G. Ingrosso and A. A. Nucita  
**Dark Matter and Dark Energy or Alternative Theories of Gravity and Cosmology, Relativistic Astrophysics**  
*4th Italian-Sino Workshop, Pescara (It), July 20-30 2007*  
AIP Conference Proceedings Vol. 966, pag. 173, 2008.
2. A. F. Zakharov, A. A. Nucita, F. De Paolis, G. Ingrosso  
**Gamma-radiation from the Galactic Center: dark matter annihilation or more conservative astrophysical models?**  
*4th Summer School and International symposium on the physics of ionized gases, Novi Sad (Serbia), August 25-29 (2008)*  
Journal of Physics: Conference Series, Volume 133, pag. 012032, 2008

## Elementary particles and nuclear physics

1. C. Corianò, A. E. Faraggi, M. Guzzi  
**Z-prime searches at the LHC: Some QCD precision studies in Drell-Yan.**  
*Incontri di Fisica delle Alte Energie ) 2008, Bologna, Italy, Mar. 26-28 Mar 2008*  
Nuovo Cim.B123 (2008) 781
2. A. Mirizzi, D. Montanino and P. D. Serpico  
**A cosmological bound on radiative neutrino lifetime**  
*Proc. TAUP 2007, 10th International Conference on Topics in Astroparticle and Underground Physics, Sendai, Japan, September 2007*  
J. Phys. Conf. Ser. 120 (2008) 022010
3. G. L. Fogli, E. Lisi, A. Mirizzi, D. Montanino and P. D. Serpico  
**Solar atmosphere neutrino oscillations**  
*Proc. TAUP 2007, 10th International Conference on Topics in Astroparticle and Underground Physics, Sendai, Japan, September 2007*  
J. Phys. Conf. Ser. 120 (2008) 052039
4. M. Picariello, B. C. Chauhan, J. Pulido, E. Torrente-Lujan.  
**Predictions from non trivial quark-lepton complementarity.**  
*CTP Symposium on Supersymmetry at LHC: Theoretical and Experimental Perspectives, Cairo - Egypt, 11-14 Mar*  
Int. J. Mod. Phys. A22 (2008) 5860

## Mathematical, non-linear and statistical physics

1. F. Toschi, J. Bec, L. Biferale, G. Boffetta, A. Celani, M. Cencini, A.S. Lanotte, S. Musacchio  
**Acceleration statistics of inertial particles from high resolution DNS turbulence**  
*IUTAM Symposium on Computational Physics and New Perspectives in Turbulence Nagoya, Japan, Sept., 11-14, 2006, Y. Kaneda Ed.*  
IUTAM Bookseries 4, Springer Berlin (2008), p. 73