

# PUBLICATIONS 2007

## Scientific articles

### „Philadelphian” publications

*Physical Review*, 24 pkt.

1. M. Nofal, S. Hagmann, Th. Stöhlker, D. H. Jakubassa-Amundsen, Ch. Kozhuharov, X. Wang, A. Gumberidze, U. Spillmann, R. Reuschl, S. Hess, S. Trotsenko, D. Banas, F. Bosch, D. Liesen, R. Moshhammer, J. Ullrich, R. Dörner, M. Steck, F. Nolden, P. Beller, H. Rothard, K. Beckert, and B. Franczak  
*Radiative Electron Capture to the Continuum and the Short-Wavelength Limit of Electron-Nucleus Bremsstrahlung in 90 A MeV  $U^{88+}(1s^2 2s^2)+N_2$  Collisions*  
Physical Review Letters 99, 163201 (2007)
2. J. Szlachetko, J.-Cl. Dousse, M. Berset, K. Fennane, M. Szlachetko, J. Hoszowska, R. Barrett, M. Pajek, A. Kubala-Kukuś  
*High-resolution study of the x-ray resonant Raman scattering process around the 1s absorption edge for aluminium, silicon and their oxides*  
Physical Review A 75 (2007) 022512
3. W. Jas and St. Mrówczyński,  
*Evolution of Anisotropy of Parton System from Relativistic Heavy-Ion Collisions,*  
Physical Review C76 (2007) 044905
4. NA49 Collaboration,  
*Elliptic flow of Lambda hyperons in Pb- Pb collisions at 158 A GeV,*  
Physical Review C75 (2007) 044901
5. NA49 Collaboration,  
*Centrality and system size dependence of multiplicity fluctuations in nuclear collisions at 158 A/GeV,*  
Physical Review C75 (2007) 064904
6. NA49 Collaboration,  
*Rapidity and energy dependence of the electric charge correlations in A-A collisions at the SPS energies,*  
Physical Review C76 (2007) 024914
7. V.V. Begun, M. Gazdzicki, Mark I. Gorenstein, M. Hauer, V.P. Konchakovski, B. Lungwitz,  
*Multiplicity fluctuations in relativistic nuclear collisions: Statistical model versus experimental data,*  
Physical Review C76 (2007) 024902
8. W. Broniowski, P. Bożek, M. Rybczyński,  
*Fluctuating initial conditions in heavy-ion collisions from the Glauber approach,*  
Physical Review C76 (2007) 054905

9. B. Biedroń, W. Broniowski,  
*Rapidity-dependent spectra from a single-freeze-out model of relativistic heavy-ion collisions,*  
Physical Review **C75** (2007) 054905
10. O.Utyuzh, G.Wilk, Z.Wlodarczyk,  
*Modeling Bose Einstein Correlations via Elementary Emitting Cells,*  
Physical Review **D75** (2007) 074030
11. E. Ruiz Arriola, W. Broniowski, B. Golli,  
*Confined Chiral Solitons in the Spectral Quark Model,*  
Physical Review **D76** (2007) 014008  
  
Physics Letters B, 24 pkt.
12. W. Broniowski, E. Ruiz Arriola,  
*Pion-photon Transition Distribution Amplitudes in the Spectral Quark Model,*  
Physics Letters **B649** (2007) 49  
  
Physica A, 20 pkt.
13. G.Wilk, Z. Wlodarczyk,  
*Fluctuations, Correlations and the nonextensivity,*  
Physica A 376 (2007) 279  
  
Spectrochimica Acta B, 24 pkt.
14. Kubala-Kukuś, D. Banaś, J. Braziewicz, S. Gózdź, U. Majewska, M. Pajek  
*Analysis of elemental concentration censored distributions in breast malignant and breast benign neoplasm tissue*  
Spectrochimica Acta **B 62** (2007) 695  
  
Physics in Medicine and Biology, 24 pkt.
15. U. Majewska, D. Banaś, J. Braziewicz, S. Gózdź, A. Kubala-Kukuś,  
M. Kucharzewski  
*Trace element concentration distributions in breast, lung and colon tissues ,*  
Physics in Medicine and Biology **52** (2007) 3895  
  
Annual Review of Nuclear and Particle Science, 24 pkt.
16. St. Mrówczyński and M.H. Thoma,  
*What Do Electromagnetic Plasmas Tell Us about Quark-Gluon Plasma?*  
Annual Review of Nuclear and Particle Science **57** (2007) 61

Nuclear Physics A, 20 pkt.

17. St. Mrówczyński,  
*Chromo-hydrodynamics of the quark-gluon plasma,*  
Proceedings of the 7th International Conference on Strong and Electroweak Matter 2006,  
*SEWM 2006*, Brookhaven National Laboratory, Long Island, NY, USA, 10-13 May 2006,  
edited by F. Karsch, D. Kharzeev and R. Venugopalan,  
Nuclear Physics **A785** (2007) 128c

Journal of Physics, 20 pkt.

18. ALICE Collaboration (Gines Martinez Garcia et al.),  
*ALICE potential for heavy flour physics,*  
Journal of Physics **G34**, S943 (2007)
19. NA49 Collaboration (C. Blume et al.),  
*Centrality and energy dependence of proton, light fragment and  
hyperon production,*  
Journal of Physics **G34**, S951 (2007)
20. NA49 Collaboration (P.Chung et al.),  
*Evidence of non-Gaussian tail in the three-dimensional pion emission source at SPS,*  
Journal of Physics **G34**, S1109 (2007)
21. ALICE Collaboration (F.Antinori et al.),  
*Heavy-ion physics with ALICE,*  
Journal of Physics **G34**, S511 (2007)
22. ALICE Collaboration (D.C.Zhou et al.),  
*PHOS, the ALICE - PHOton Spectrometer,*  
Journal of Physics **G34**, S719 (2007)
- 23 . ALICE Collaboration (Tapan K. Nayak et al.),  
*Proton - proton analisys in ALICE*  
Journal of Physics **G34**, S783 (2007)
24. P.Kościk, A. Okopińska,  
*The optimized Rayleigh-Ritz scheme for determining the quantum-mechanical spectrum,*  
Journal of Physics **A: Math. Theor.** **40** (2007) 10851
25. P.Kościk, A. Okopińska,  
*Quasi-exact solutions for two interacting electrons in two-dimensional anisotropic dots,*  
Journal of Physics **A: Math. Theor.** **40** (2007) 1045

Vacuum, 20 pkt.

26. M.Drabik, K.Dworecki, R.Tańczyk, S.Wąsik, J.Żuk,  
*Surface modification of PET membrane by ion implantation,*  
Vacuum **81** (2007) 1348

Acta Physica Polonica, 15 pkt.

27. Mikołaj Chojnacki and Wojciech Florkowski,  
*Temperature dependence of sound velocity and hydrodynamics of ultra-relativistic heavy-ion collision,*  
Acta Physica Polonica **B38** (2007) 3249
28. T. Kosztolowicz,  
*Scaling form of the concentration profiles in a subdiffusive membrane system,*  
Acta Physica Polonica **B38** (2007) 1807
29. T. Kosztolowicz,  
*Numerical study of subdiffusion equation,*  
Acta Physica Polonica **B38** (2007) 1847

Journal of Membrane Science, 24 pkt.

30. M.Arabski, S.Wasik, K.Dworecki, W.Kaca,  
*Laser interferometric determination of ampicillin and colistin transfer through cellulose biomembrane in the presence of Proteus vulgaris O25 lipopolysaccharide,,*  
Journal of Membrane Science **299** (2007) 268

Brazilian Journal of Physics, 10 pkt.

31. O.Utyuzh, G.Wilk, Z.Wlodarczyk,  
Numerical symmetrization of state of identical particles,  
Brazilian Journal of Physics, 37 (2007) 708
32. W. Florkowski, W. Broniowski, B. Hiller, and P. Bożek  
*Event-by-event fluctuations of transverse-momentum and multiparticle clusters in relativistic heavy-ion collisions*  
Brazilian Journal of Physics **37** (2007) 711

European Physical Journal A, 20 pkt.

33. St. Mrówczyński,  
*Scenario of instabilities driven equilibration of the quark-gluon plasma,*  
Proceedings of the IVth International Conference on Quarks and Nuclear Physics, *QNP06*,  
Madrid, Spain, 5-10 June 2006, edited by A. Dobado, F.J. Llanes-Estrada and V. Vento,  
European Physical Journal **A31** (2007) 875
34. E. Ruiz Arriola, W. Broniowski,  
*Dimension-2 condensates, zeta-regularization and large- $N(c)$  Regge Models,*  
Proceedings of 4th International Conference on Quarks and Nuclear Physics (*QNP06*),  
Madrid, Spain, 5-10 Jun 2006  
European Physical Journal **A31** (2007) 739
35. NA49 Collaboration,  
*Inclusive production of charged pions in  $p+C$  collisions at 158-GeV/c beam*

*momentum*,  
European Physical Journal **C49** (2007) 897

Canadian Journal of Physics, 15 pkt.

36. K. Vlachos, V. Papatheou. A. Okopińska.  
*Perturbation and variational-perturbation method for the free energy of anharmonic oscillators*,  
Canadian Journal of Physics **85** (2007) 13

Physical Chemistry Chemical Physics, 24 pkt.

37. E. Vigren, M. Kaminska, M. Hamberg, V. Zhaunerchyk, R. D. Thomas, J. Semaniak, M. Danielsson, M. Larsson, and W. D. Geppert,  
*Dissociative recombination of the deuterated acetaldehyde ion,  $CD_3CDO^+$ : product branching fractions, absolute cross sections and thermal rate coefficient*,  
Physical Chemistry Chemical Physics **9** (2007) 2856

Journal of Chemical Physics, 24 pkt.

38. V. Zhaunerchyk W. D. Geppert, E. Vigren, M. Hamberg, M. Danielsson, M. Larsson, R. D. Thomas, M. Kaminska, and F. Österdahl,  
*Dissociative recombination study of  $N_3^+$ : Cross section and branching fraction measurements*,  
Journal of Chemical Physics **127** (2007) 014305

Molecular Physics, 15 pkt.

39. M. Hamberg, W. D. Geppert, R. D. Thomas, V. Zhaunerchyk, F. Österdahl,  
A. Ehlerding, M. Kaminska, J. Semaniak, M. af Ugglas, A. Källberg, A. Paal,  
A. Simonsson, M. Larsson,  
*Experimental determination of dissociative recombination reaction pathways and absolute reaction cross-sections of  $CH_2OH^+$ ,  $CD_2OD^+$  and  $CD_2$* ,  
Molecular Physics, **105** (2007) 899

Nuclear Instruments and Methods in Physics Research B, 24 pkt.

40. S. Hagmann, Th. Stöhlker, Ch. Kozuharov, J. Ullrich, R. Dörner, R. Moshhammer, M. Nofal, H. Rothard, U. Spillmann, R. Reuschl, S. Hess, S. Trotsenko, D. Banas, F. Bosch, D. Liesen, M. Steck, Ch. Dimopoulou, F. Nolden, D. Jakubassa-Amundsen, G. Lanzaò, E. de Filippo, X. Wang, B. Wei  
*Current and Future Electron Spectroscopy Experiments in Relativistic Storage Rings*  
Nuclear Instruments and Methods in Physics Research B, **261** (2007) 218

41. M. Trassinelli, D. Banaś, H.F. Beyer, P. Jagodziński, A. Kumar, M. Pajek, and Th. Stöhlker  
*High-accuracy crystal spectroscopy of the  $n = 2$  energy level of helium-like uranium*  
Canadian Journal of Physics / Review of Canadian Physics, **85** (2007) 441

**Other referred publications**

42. S Hagmann, M Nofal, T Stöhlker, D H Jakubassa-Amundsen, Ch Kozhuharov, X Wang, A Gumberidze, U Spillmann, R Reuschl, S Hess, S Trotsenko, D Banas, F Bosch, D Liesen, R Moshhammer, J Ullrich, R Dörner, M Steck, F Nolden, H Rothard, G Lanzańo and E deFilippo  
*Radiative electron capture to continuum (RECC) and the short-wavelength limit of electron–nucleus Bremsstrahlung in near-relativistic collisions*  
Journal of Physics: Conference Series, 88 (2007) 012015
43. Th. Stöhlker, A. Gumberidze, D. Banas, H. F. Beyer, F. Bosch, S. Chatterjee, C. Kozhuharov, T. Krings, D. Liesen, X. Ma, D. Protic, R. Reuschl, D. Sierpowski, U. Spillmann, S. Tashenov, S. Trotsenko and A. Warczak  
*Recent Developments for the Investigation of Ground-State Transitions in Heavy One-Electron Ions*  
Journal of Physics: Conference Series 72, (2007) 012008
44. D. Banas, P. Jagodzinski, M. Pajek, Th. Stöhlker, M. Trassinelli, H. F. Beyer, R. Reuschl and U. Spillmann  
*Development of a Bragg spectrometer for experiments with highly charged ions at storage rings*  
Journal of Physics: Conference Series, 58 (2007) 415
45. A. Gumberidze, Th. Stöhlker, D. Banas, K. Beckert, P. Beller, H. F. Beyer, F. Bosch, X. Cai, S. Hagmann, C. Kozhuharov, D. Liesen, F. Nolden, X. Ma, P. H. Mokler, M. Steck, D. Sierpowski, S. Tashenov, A. Warczak and Y. Zou  
*Precision tests of QED in strong fields: experiments on hydrogen- and helium-like uranium*  
Journal of Physics: Conference Series, 58 (2007) 87
46. G Weber, Th. Stöhlker, D. Banas, S Fritzsche, A. Gumberidze, S. Hagmann, S. Hess, C. Kozhuharov, M. Nofal, U. Popp, R. Reuschl, U. Spillmann, A. Surzhykov and S. Trotsenko  
*Radiative processes studied for bare uranium ions in collisions with  $H_2$*   
Journal of Physics: Conference Series, 58 (2007) 243
47. R. Reuschl, D. Banas, H. F. Beyer, S. Chatterjee, A. Gumberidze, S. Hess, T. Krings, D. Liesen, D. Protic, U. Spillmann, Th. Stöhlker, M. Trassinelli, S. Trotsenko, G. Weber and the Focal Collaboration  
*Recent experimental developments for the Lamb shift investigation in heavy ions*  
Journal of Physics: Conference Series, 58 (2007) 407

48. S. Trotsenko, Th. Stöhlker, D. Banas, C. Z. Dong, S. Fritzsche, A. Gumberidze, S. Hagmann, S. Hess, P. Indelicato, C. Kozhuharov, M. Nofal, R. Reuschl, J. Rzakiewicz, U. Spillmann, A. Surzhykov, M. Trassinelli and G. Weber  
*Investigation of the Decay Properties of the  $1s(2s)2$  State in Li-Like Uranium*  
Journal of Physics: Conference Series, 58 (2007) 141
49. M. Czarnota, M. Pajek, D. Banaś, J.-Cl. Dousse, Y.-P. Maillard, O. Mauron, P. A. Raboud, M. Berset, J. Hoszowska, K. Słabkowska, M. Polasik, D. Chmielewska, J. Rzakiewicz and Z. Sujkowski  
*Vacancy rearrangement processes in multiply ionized atoms*  
Journal of Physics: Conference Series, 58 (2007) 295
50. M. Nofal, S. Hagmann, Th. Stöhlker, D. H. Jakubassa-Amundsen, Ch. Kozhuharov, X. Wang, A. Gumberidze, U. Spillmann, R. Reuschl, S. Hess, S. Trotsenko, D. Banas, F. Bosch, D. Liesen, R. Moshhammer, J. Ullrich, R. Dörner, M. Steck, F. Nolden, P. Beller, K. Beckert and B. Franczak  
*Radiative Electron Capture to Continuum (RECC) in 90AMeV  $U^{88+}(1s^22s^2) + N_2$  : the Short Wavelength Limit of Electron Nucleus Bremsstrahlung*  
Journal of Physics: Conference Series 58, (2007) 307
51. Th. Stöhlker, U. Spillmann, D. Banas, H. F. Beyer, J. Cl. Dousse, S. Chatterjee, S. Hess, C. Kozhuharov, M. Kavcic, T. Krings, D. Protic, R. Reuschl, J. Szlachetko, S. Tashenov and S. Trotsenko  
*A 2D position sensitive germanium detector for spectroscopy and polarimetry of high-energetic x-rays*  
Journal of Physics: Conference Series 58, (2007) 411
52. J. Rzakiewicz, D. Banas, H. F. Beyer, C. Brandau, C. Z. Dong, S. Fritzsche, A. Gójska, A. Gumberidze, S. Hagmann, C. Kozhuharov, R. Reuschl, U. Spillmann, Th. Stöhlker, A. Surzhykov, S. Tashenov and S. Trotsenko  
*Study of intra-L shell transitions in Be-like uranium*  
Journal of Physics: Conference Series, 58 (2007) 145
53. G. Wilk, Z. Włodarczyk,  
*Tsallis distribution from minimally selected order statistics,*  
Complexity, Metastability and Nonextensivity – CTNEXT 07  
AIP Conference Proceedings 965 (2007) 76
54. G. Wilk, Z. Włodarczyk,  
*Nonextensivity in the spectrum of cosmic rays: a possible physical explanation,*  
Complexity, Metastability and Nonextensivity – CTNEXT 07  
AIP Conference Proceedings 965 (2007) 273
55. T. Kosztołowicz,  
*Time evolution of the reaction front in a subdiffusive system,*  
Noise and fluctuations, eds. M. Tacano et al.  
AIP Conference Proceedings 922 (2007) 599

56. K. Bajan, P. Flin,  
*Redshift periodicity*  
Concepts of Physics **4** (2007) 159

### Other publications

#### International

1. P. Kankiewicz i inni. (raport z obserwacji),  
*OBSERVATIONS OF COMETS*,  
Minor Planets Electronic Circular MPEC 2007-D61
2. Kankiewicz, P,  
*Comet Observations [B02 Kielce]*,  
Minor Planet Circular 58998, 44 (2007).
3. D. Buckley, T. Kwiatkowski, A. Kryszczyńska, M. Polinska, P. Charles, E.R. Colmenero, Y. Hashimoto, A. Kniazev, N. Loaring, D. O'Donoghue, M. Still, P. Vaisanen, P. Kankiewicz,  
*Minor Planet Observations [B31 Southern African Large Telescope, Sutherland]*, Minor Planet Circular 59315, 15 (2007).
4. D. Buckley, T. Kwiatkowski, A. Kryszczyńska, M. Polinska, P. Charles, E.R. Colmenero, Y. Hashimoto, A. Kniazev, N. Loaring, D. O'Donoghue, M. Still, P. Vaisanen, P. Kankiewicz,  
*Minor Planet Observations [B31 Southern African Large Telescope, Sutherland]*, Minor Planet Circular 59592, 15 (2007).
5. P. Kankiewicz i inni (raport z obserwacji)  
*OBSERVATIONS OF COMETS*,  
Minor Planets Electronic Circular MPEC 2007-U11.
6. P. Kankiewicz i inni (raport z obserwacji)  
*OBSERVATIONS OF COMETS*,  
Minor Planets Electronic Circular MPEC 2007-U93.
7. Kankiewicz, P. i inni (raport z obserwacji)  
*OBSERVATIONS OF COMETS*,  
Minor Planets Electronic Circular MPEC 2007-X12.
8. G.Wilk, Z.Włodarczyk,  
Cosmic rays from thermal sources,  
Proceedings of 30<sup>th</sup> International Cosmic Ray Conference, OG.1.2 (0848),  
edition: Universidad Nacional Autonoma de Mexico, Merida (2007)
9. P. Flin, W. Godłowski, M. Szydlowski  
*Is the Universe rotating?*  
In : *Astrophysics and Cosmology after Gamow* ( eds. Bisnovaty – Kogan et al), 2007,  
Cambridge Scientific Publ. p. 287 – 291



10. E. Panko, P. Flin,  
*Distribution of Galaxies in Clusters: A2333 and A3846*  
In: *Astrophysics and Cosmology after Gamow* ( eds. Bisnovaty – Kogan et al),  
2007, Cambridge Scientific Publ. p. 293 – 297
11. J. Krywult, *Luminosity Function of Galaxies in Substructures of Galaxy Clusters*,  
Proceedings of the IAU 2007, 2, 217, Cambridge University Press
12. K. Bajan, P. Flin, W. Godłowski, N. Pervushin,  
*On the investigation of galaxy redshift periodicity*,  
*Physics of Particles and Nuclei, Letter*, **1** (2007) 16

### Domestic

13. W. Byrski,  
*O możliwości komputeryzacji narzędzi analizy strategicznej*,  
w *Zarządzanie przedsiębiorstwem. Teoria i praktyka*,  
AGH-Kraków 2007, str. 24-34
14. G. Suchanek,  
*Biofizyczne aspekty translokacji wody w roślinach na długich dystansach*, Wydawnictwo  
Akademii Świętokrzyskiej, 2007
15. M. Wysocka–Kunisz, L. Nowak,  
*Możliwości wykorzystania wiedzy przyrodniczej w ocenie uczniów klas szóstych*,  
w: *Nauka, technika, społeczeństwo, wyzwania i perspektywy w zakresie kształcenia  
przyrodniczego* pod red. M. Pedryc-Wrony, Lublin 2007, s. 108-114
16. G. Nalepa,  
Visual design tools for XTT-based rulebases  
*CMS'07 : Computer Methods and Systems*  
*VI konferencja, 21–23.11.2007, Kraków, eds. R. Tadeusiewicz, A. Ligęza, M. Szymkat —*  
*AGH University of Science and Technology, Oprogramowanie Naukowo-Techniczne,*  
*2007. — ISBN 83-916420-4-6. — S. 71*
17. G. Nalepa,  
*Intelligent business web applications design using the XTT approach*  
Proceedings of the 16th international conference on Systems science.  
Vol. 2, Manufacturing systems ; Distributed computer systems and computer networks ;  
Knowledge-based and intelligent systems ; Decision support and expert systems : 4–  
6.09.2007, Wrocław, ed. Adam Grzech — Oficyna Wydawnicza Politechniki  
Wrocławskiej, 2007. — ISBN 978-83-7493-340-7. — S. 405

### Domestic – popular science articles

18. M. Drabik, J. Krywult ,  
*Astronomia na Akademii Świętokrzyskiej*,  
*Urania - Postępy Astronomii*, 5/2007, Warszawa

# PARTICIPATION IN CONFERENCES

## Invited lectures

### International

1. St. Mrówczyński,  
*Color Instabilities in the Quark-Gluon Plasma*,  
The second international workshop of the Virtual Institute  
on Strongly Interacting Matter "Heavy Ion Physics Perspectives",  
Bad Liebenzell, Germany, September 12-14, 2007
2. St. Mrówczyński,  
*Instabilities Driven Equilibration of the Quark-Gluon Plasma*,  
New Trends in High-Energy Physics,  
Yalta, Crimea, Ukraine, September 18-22, 2007
3. St. Mrówczyński,  
*Instabilities Driven Equilibration of the Quark-Gluon Plasma*,  
International Workshop "Relativistic Nuclear Physics: from Nuclotron to LHC energies",  
Kiev, Ukraine, June 18-22, 2007
4. St. Mrówczyński,  
*Parton Momentum Distribution Prior to Equilibrium*,  
Workshop on Early Time Dynamics in Heavy Ion Collisions,  
Montréal, Canada, July 16-19, 2007
5. Z. Włodarczyk,  
*Cosmic rays from thermal sources*,  
30<sup>th</sup> International Cosmic Ray Conference, 3-11 July 2007, Merida (Meksyk),
6. M. Gazdzicki,  
*Past and Future of Heavy Ion Physics in the CERN SPS  
energy domain*,  
IV Polish Workshop on Relativistic Heavy Ion Collisions, Heavy Ion Physics in the LCH era,  
May 17-18, 2007, Cracow, Poland
7. M. Gazdzicki,  
*Onset of Deconfinement and Critical Point: NA49 and NA61/SHINE at the CERN SPS*,  
Zimanyi 75 Memorial Workshop, July 2-4, 2007, Budapest, Hungary
8. M. Gazdzicki,  
*Onset of Deconfinement in Nucleus-Nucleus Collisions -Past, Present and Future*,  
New Trends in High Energy Physics, Yalta, Ukraine, September 15-22, 2007
9. A. Okopińska,  
*A systematic approximation scheme for the density functional of an interacting Bose gas*  
Ruperto Carola Symposium on Ultracold Quantum Gases, Heidelberg 17-21.07.07
10. W. Broniowski,  
*Large- $N_c$  Regge models and the A2 condensate*,

Mini-Workshop Bled 2007, Hadron Structure and Lattice QCD,  
Bled, Slovenia, July 9-16 2007

11. M. Pajek, *K-shell Resonant Raman Scattering in Si: implications for Al detection by GEXRF*  
12<sup>th</sup> Conference on Total Reflection X-ray Fluorescence Analysis and Related Methods  
(TXRF), 18-22 June, Trento, Italy
12. T. Kosztolowicz, K. Lewandowska,  
*Time evolution of the reaction front in a subdiffusive system*,  
International Conference on Noise and Fluctuations, 9-14.09.2007, Tokyo

### Domestic

13. P.Flin,  
Katalog struktur,  
XXXIII Zjazd Polskiego Towarzystwa Astronomicznego Kielce, 17-21.09.2007
14. W. Byrski, *O możliwości komputeryzacji narzędzi analizy strategicznej*,  
Jubileuszowa X międzynarodowa konferencja naukowa, AGH Kraków 2007
15. W. Byrski,  
*Strategiczne cele e-nauczania*,  
XXIII Jesienne spotkania PTI, Wisła 2007
16. A. Okopińska, P. Kościk  
*Determining the Schrödinger Spectrum to Arbitrary Precision with Mathematica*  
Poland Mathematica Conference, Warszawa, 30 października 2007
17. T. Kosztolowicz,  
*How to measure subdiffusion parameters*,  
23 Max Born Symposium, Polanica Zdrój, 3-6.09.2007

### Communicates

#### International

1. M. Biernacka,  
*Evolution of nearby galaxy clusters*,  
Tracing Cosmic Evolution with Clusters of galaxies: Six years later, Sesto,  
Włochy, 25 – 29.06.2007
2. A.KubalaKukuś, M. Pajek, D. Banaś, J. Braziewicz, S. Gózdź, U.Majewska *Application of  
censoring in elemental analysis*  
Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods (TXRF  
2007), 18-22.06.2007 Povo (Trento) Italy
3. M. Pajek, A. Kubala-Kukuś, D. Banaś, J.-Cl. Dousse, J. Hoszowska, J. Szlachetko, M.  
Szlachetko, Y. Kayser, W. Cao, M. Salomé, J. Susini  
*Application of grazing emission x-ray fluorescence for high resolution detection of Al  
impurities in silicon*

Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods (TXRF 2007), 18-22.06.2007 Povo (Trento) Italy

4. M. Pajek, J. Szlachetko, R. Barrett, M. Berset, J.-Cl. Dousse, K. Fennane, J. Hoszowska, A. Kubala-Kukuś, M. Szlachetko  
*X-ray resonant Raman scattering in Si and SiO<sub>2</sub> below the K-shell absorption edge*  
Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods (TXRF 2007), 18-22.06.2007 Povo (Trento) Italy
5. U. Majewska, M. Kucharzewski, D. Banaś, J. Braziewicz, A. Kubala-Kukuś, S. Gózdź, M. Ranecka  
*Analysis of heavy elements distributions in colorectal cancer*  
Third International Symposium Federation of European Societies on Trace Elements and Minerals FESTEM, May, 16-19, 2007, Santiago de Compostela, Spain
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3. Prof. dr hab. St. Mrówczyński,  
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7. Dr. T. Kosztołowicz  
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