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◇ Quarks, Leptons

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R. Barbier et al. (C. Bérat) – R-parity-violating supersymmetry – *Phys. Rep.* 420 (2005) 1-202

▪ ATLAS

B. Aubert et al. (J. Collot, M.-L. Gallin-Martel, J.-Y. Hostachy, P. Martin) – Development and construction of large size signal electrodes for the ATLAS electromagnetic calorimeter – *Nucl. Instrum. Meth. Phys. Res. A* 539 (2005) 558-594

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▪ DØ

Y. Arnoud, A. Besson, S. Crépe-Renaudin, A. Lucotte, A.-M. Magnan, G. Sajot, J. Stark

A precision measurement of the mass of the top quark – *Nature* 429 (2004) 638-642

Search for 3- and 4-body decays of the scalar top quark in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV – *Phys. Lett. B* 581 (2004) 147-155

Search for new particles in the two-jet decay channel with the DØ detector – *Phys. Rev. D* 69 (2004) 111101(R) (5 pages)

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Search for supersymmetry with gauge-mediated breaking in diphoton events at DØ – *Phys. Rev. Lett.* 94 (2005) 041801 (7 pages)

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Measurement of the ratio of B^+ and B^0 meson lifetimes – *Phys. Rev. Lett.* 94 (2005) 182001 (7 pages)

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A. Rousseau, E. Teboul, **S. Béchu** – Comparison between Langmuir probe and microwave auto-interferometry measurements at intermediate pressure in an argon surface wave discharge – *J. Appl. Phys.* 98 (2005) 083306

◇ Physique Théorique

J. Carbonell, R. Lazauskas, V.I. Korobov – Relativistic and QED corrections to the $2p\sigma_u$ ($v = 1$) vibrational state of the H_2^+ molecular ion – *J. Phys. B: At. Mol. Opt. Phys.* 37 (2004) 2997-3002

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M. Klasen, G. Kramer – Factorization breaking in diffractive dijet photoproduction – *Eur. Phys. J. C* 38 (2004) 93-104

M. Klasen, G. Kramer – Evidence for factorization breaking in diffractive low- Q^2 dijet production – *Phys. Rev. Lett.* 93 (2004) 232002 (4 pages)

R. Lazauskas, **J. Carbonell** – Testing nonlocal nucleon-nucleon interactions in four-nucleon systems – *Phys. Rev. C* 70 (2004) 044002 (12 pages)

M. Leibscher, I.Sh. Averbukh, P. Rozmej, **R. Arvieu** – Semiclassical catastrophes and cumulative angular squeezing of a kicked quantum rotor – *Phys. Rev. A* 69 (2004) 032102 (17 pages)

C.P. Liu, C.H. Hyun, **B. Desplanques** – Parity nonconservation in the photodisintegration of the deuteron at low energy – *Phys. Rev. C* 69 (2004) 065502 (11 pages)

J.-M. Richard – Safe domain and elementary geometry – *Eur. J. Phys.* 25 (2004) 835-844

C. Semay, **B. Silvestre-Brac**, I.M. Narodetskii – Auxiliary fields and hadron dynamics – *Phys. Rev. D* 69 (2004) 014003 (7 pages)

C. Semay, **B. Silvestre-Brac** – $1/2^+$ $uudd\bar{s}$ pentaquark and instanton-induced forces – *Eur. Phys. J. A* 22 (2004) 1-3

B. Silvestre-Brac, C. Semay, I.M. Narodetskii, A.I. Veselov – The baryonic Y-shape confining potential energy and its approximants – *Eur. Phys. J. C* 32 (2004) 385-397

J. Vijande, F. Fernandez, A. Valcarce, **B. Silvestre-Brac** – Tetraquarks in a chiral constituent-quark-model – *Eur. Phys. J. A* 19 (2004) 383-389

E.A.G. Armour, **J.-M. Richard**, K. Varga – Stability of few-charge systems in quantum mechanics – *Phys. Rep.* 413 (2005) 1-90

G. Bozzi, B. Fuks, M. Klasen – Nondiagonal and mixed squark production at hadron colliders – *Phys. Rev. D* 72 (2005) 035016 (9 pages)

G. Bozzi, B. Fuks, M. Klasen – Slepton production in polarized hadron collisions – *Phys. Lett. B* 609 (2005) 339-350

B. Desplanques – Relativistic quantum mechanics: a Dirac's point-form inspired approach – *Nucl. Phys. A* 748 (2005) 139-167

M. Klasen, B.A. Kniehl, L.N. Mihaila, M. Steinhauser – J/ψ plus prompt-photon associated production in two-photon collisions at next-to-leading order – *Phys. Rev. D* 71 (2005) 014016 (14 pages)

M. Klasen, B.A. Kniehl, L.N. Mihaila, M. Steinhauser – J/ψ plus jet associated production in two-photon collisions at next-to-leading order – *Nucl. Phys. B* 713 (2005) 487-521

M. Klasen, G. Kramer – Factorization scheme and scale dependence in diffractive dijet production at low Q^2 – *J. Phys. G: Nucl. Part. Phys.* 31 (2005) 1391-1400

E. Klempt, C. Batty, **J.-M. Richard** – The antinucleon-nucleon interaction at low energy: Annihilation dynamics – *Phys. Rep.* 413 (2005) 197-317

V. Korobov, J.-M. Richard – Mass-symmetry breaking in three-body ions – *Phys. Rev. A* 71 (2005) 024502 (4 pages)

R. Lazauskas, **J. Carbonell**, A.C. Fonseca et al. – Low energy n-³H scattering: A novel testground for nuclear interactions – *Phys. Rev. C* 71 (2005) 034004 (8 pages)

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R. Lazauskas, **J. Carbonell** – Is a physically observable tetra-neutron resonance compatible with realistic nuclear interactions? – *Phys. Rev. C* 72 (2005) 0343003 (7 pages)

J.-M. Richard – Improving the Feshbach-Rubinow approximation – *Phys. Rev. C* 72 (2005) 034007 (4 pages)

C. Semay, F. Brau, **B. Silvestre-Brac** – Pentaquarks $uudd\bar{s}$ with one color sextet diquark – *Phys. Rev. Lett.* 94 (2005) 062001 (4 pages)

C. Semay, **B. Silvestre-Brac** – The equation of motion of an interstellar Bussard ramjet – *Eur. J. Phys.* 26 (2005) 75-83

J. Vijande, A. Valcarce, F. Fernandez, **B. Silvestre-Brac** – Nature of the light scalar mesons – *Phys. Rev. D* 72 (2005) 034025 (9 pages)

◆ Services techniques

C. Hervé, **D. Dzahini**, T. Le Caër, **J.-P. Richer**, K. Torki – BiCMOS amplifier-discriminator integrated circuit for gas-filled detector readout – *Nucl. Instrum. Meth. Phys. Res. A* 540 (2005) 437-447

Conférences : Communications avec actes

◊ Quarks, Leptons, Interactions fondamentales

▪ ATLAS

6th International Conference on Hyperons, Charm and Beauty Hadrons (BEACH 2004) Chicago, Illinois, USA, 27 June 2004-3 July 2004

S. Viret for the ATLAS, CMS and LHCb Collaborations – Rare B decays at LHC – *Nucl. Phys. B Proc. Suppl. 142 (2005) 420-425*

3rd Meeting: TeV4LHC Workshop, Geneva, Switzerland, 28-30 April 2005

A. Lucotte – Prospect for precision measurements of single-top cross sections with ATLAS – *À paraître dans un rapport de synthèse édité par S. Mrenna et M. Carena*

B. Trocmé, F. Ledroit, M. Schaefer – Distinguishing Z models in ATLAS – *À paraître dans un rapport de synthèse édité par S. Mrenna et M. Carena*

Hadron Collider Physics Symposium (HCP 2005), Les Diablerets, Switzerland, 4-9 July 2005

A. Lucotte – Top quark physics prospects in ATLAS
EPS International Europhysics Conference on High Energy Physics (HEPP-EPS 2005), Lisbon, Portugal, 21-27 July 2005

F. Malek – CP violation and rare B decays at ATLAS

B. Trocmé – Searching for Z' and model discrimination in ATLAS

4th Meeting: TeV4LHC Workshop, Chicago, Illinois, USA, 20-22 October 2005

F. Chevallier – Single top cross section measurements in ATLAS – *À paraître dans un rapport de synthèse édité par S. Mrenna et M. Carena*

▪ DØ

39th Rencontres de Moriond on Electroweak Interactions and Unified Theories, La Thuile, Italy, 21-28 March 2004

J. Stark – B physics at DØ – *Proceedings edited by J. Trân Thanh Vân (The GIOI Publishers, 2004)*

EPS International Europhysics Conference on High Energy Physics (HEPP-EPS 2005), Lisbon, Portugal, 21-27 July 2005

J. Stark – Mass differences in the Bs system

▪ GRANIT

International Conference on Precision Measurements with Slow Neutrons, Gaithersburg, Maryland, USA, 5-7 April 2004

V.V. Nesvizhevsky et al. (**K.V. Protasov**) – Investigation of the neutron quantum states in the

Earth's gravitational field – *J. Res. of the NIST 110 (2005) 263-267*

V.V. Nesvizhevsky, **K.V. Protasov** – Constraints on non-Newtonian gravity from the experiment on neutron quantum states in the Earth's gravitational field – *J. Res. of the NIST 110 (2005) 269-272* – Poster

◊ Cosmologie, Rayons cosmiques

▪ AMS

39th Rencontres de Moriond "Exploring the Universe", La Thuile, Italy, 28 March-4 April 2004

L. Derome – The AMS experiment – *Proceedings edited by Y. Giraud-Héraud, J. Trân Thanh Vân (The Gioi Publishers, 2004) 77-80*

3rd International Conference on Frontier Science: Physics and Astrophysics in Space, Frascati & Rome, Italy, 14-19 June 2004

B. Baret, R. Duperray, L. Derome, D. Maurin, K. Protasov, M. Buénerd – Production of secondary light antimatter nuclei in the galaxy and in the atmosphere – *Proceedings edited by A. Morselli et al. (Frascati Physics Series: 37, 2004) 151-156*

5th International Workshop on Ring Imaging Cherenkov Detectors (RICH 2004), Playa del Carmen, Yucatan Peninsula, Mexico, 30 November-5 December 2004

M. Buénerd – The AMS02 Cherenkov imager prototype: In-beam tests with high-energy ions – *Nucl. Instrum. Meth. Phys. Res. A 553 (2005) 264-267*

22nd Texas Symposium on Relativistic Astrophysics, Stanford, California, USA, 13-17 December 2004

S. Alexeyev, N. Popov, **A. Barrau, J. Grain** – New black hole solutions in the string gravity with noncompact extra dimensions and their experimental search I – *Proceedings edited by P. Chen et al. (2004) SLAC-R-752 eConfC041213: 1202* – Poster

4th International Conference on New Developments in Photodetection, Beaune, France, 19-24 June 2005

O. Véziat – Tests of the AMS RICH prototype with secondary ions at CERN – Poster

EPS International Europhysics Conference on High Energy Physics, Lisbon, Portugal, 21-27 July 2005

J. Labbé, A. Barrau, J. Grain – Phenomenology of black hole evaporation with a cosmological constant

29th International Cosmic Ray Conference (ICRC 2005), Pune, India, 3-10 August 2005

M. Aguilar Benitez et al. (**F. Barao, A. Barrau, M. Brinet, M. Buénerd, L. Derome, L. Eraud, L. Gallin-Martel, K. Protasov, M. Vargas-Trevino, O. Véziat**) – The Ring Imaging Cherenkov detector (RICH) of the AMS experiment

M. Buénerd, A. Barrau, O. Bourrion, J. Bouvier, B. Boyer, L. Derome, L. Eraud, R. Foglio, L. Gallin-Martel, M. Mangin-Brinet, K. Protasov, Y. Sallaz-Damaz – A Cherenkov imager for charge measurements of Nuclear Cosmic Rays in the CREAM II instrument

L. Derome, M. Buénerd – Precise simulation of secondary particle production and propagation in the atmosphere

L. Derome, M. Buénerd – Parameterization of inclusive double differential cross section for secondary particle production in the atmosphere – Poster

▪ **ARCHEOPS**

39th Rencontres de Moriond “Exploring the Universe”, La Thuile, Italy, 28 March-4 April 2004

M. Tristram – A new estimation of the Archeops angular power spectrum. – *Proceedings edited by Y. Giraud-Héraud, J. Trân Thanh Vân (The Gioi Publishers, 2004) 279-282*

▪ **EUSO**

32nd International Conference on High Energy Physics (ICHEP'04), Beijing, China, 16-22 August 2004

D.H. Koang – EUSO: A space observatory for ultra high energy cosmic rays – *Proceedings edited by H. Chen et al. (World Scientific, 2005)*

19th European Cosmic Ray Symposium (ICRS 2004), Florence, Italy, 30 August-3 September 2004

P. Vallania et al. (**J. Chauvin, D. Lebrun, S. Moreggia, P. Stassi**) – Diffused Cerenkov light measurements for the EUSO project – *Int. J. Mod. Phys. A 20 n° 29 (2005) 6906-6908*

4th International Conference on New Developments in Photodetection, Beaune, France, 19-24 June 2005

M. Ameri et al. (**G. Bosson, O. Bourrion, D. Dzahini, D.H. Koang, E. Lagorio, J.-P. Richer**) – A photo-detector for UHECR observation from space

29th International Cosmic Ray Conference (ICRC 2005), Pune, India, 3-10 August 2005

V. Berezhinsky et al. (**D.H. Koang**) – EUSO science – *Proceedings CDRom Session HE 1.5* – Poster

O. Catalano et al., **C. Bérat, S. Moreggia, A. Stutz** – Requirements and simulation study of the performance of EUSO as external payload on board the International Space Station – *Proceedings CDRom Session HE 1.5* – Poster

G. Agnetta et al. (**J. Chauvin, D. Lebrun, S. Moreggia, P. Stassi**) – Results from the ULTRA experiment in the framework of the EUSO Project – *Proceedings CDRom Session HE 1.2* – Poster

A. Thea et al. (**C. Bérat, S. Moreggia, A. Stutz**) – The EUSO simulation and analysis framework – *Proceedings CDRom Session HE 1.5* – Poster

A. Thea et al. (**C. Bérat, S. Moreggia, A. Stutz**) – Simulation study of a space based UHECR detector – *Proceedings CDRom Session HE 1.5* – Talk

▪ **MIMAC-He3**

39th Rencontres de Moriond “Exploring the Universe”, La Thuile, Italy, 28 March-4 April 2004

C. Winkelmann, **E. Moulin, Y. Bunkov, J. Genevey, H. Godfrin, J. Macias-Pérez, J.-A. Pinston, D. Santos** – MACHe3, a prototype for non-baryonic dark matter search: KeV event detection and multicell correlation – *Proceedings edited by Y. Giraud-Héraud, J. Trân Thanh Vân (The Gioi Publishers, 2004) 71-76*

5th International Workshop on the Identification of Dark Matter (IDM 2004), Edinburgh, United Kingdom, 6-10 September 2004

D. Santos, E. Moulin – MIMAC-He3: a new detector for non-baryonic dark matter search – *Proceedings edited by N.J.C. Spooner, V. Kudryavtsev (World Scientific, 2005) 360-365*

40th Rencontres de Moriond: Very High Energy Phenomena in the Universe, La Thuile, Italy, 12-19 March 2005

E. Moulin, D. Santos – MIMAC-He3, a project for a micro-TPC matrix of chambers of Helium 3 for axial direct detection of non-baryonic dark matter

9th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2005), Zaragoza, Spain, 10-14 September 2005

D. Santos, E. Moulin, F. Mayet, J. Macías-Pérez – MIMAC-He3: A Micro-TPC Matrix of Chambers of He3 for direct detection of Wimps

◊ **Hadrons et Noyaux**

▪ **Jefferson Laboratory**

20th Winter Workshop on Nuclear Dynamics, Trelawny Beach, Jamaica, 15-20 March 2004

S. Kox – Hadron physics studied at TJNAF with the electro-magnetic and weak probes – *Acta Phys. Hung. A 24 (2005) 59-64* – Invited talk

International Workshop on Parity Violation and Hadronic Structure (PAVI'04), Grenoble, France, 8-11 June 2004

B. Guillon – Cherenkov counter for the G0 backward angle measurements – *Eur. Phys. J. A 24 Supplement 2 (2005) 145-145*

23rd International Workshop on Nuclear Theory, Rila, Bulgaria, 14-19 June 2004

E. Voutier – Results and prospects of few-body system structure studies

19th European Conference on Few-Body Problems in Physics, Groningen, The Netherlands, 23-27 August 2004

C. Furget – The G0 experiment at Jefferson Laboratory: Measurement of the weak neutral form factors of the nucleon – *Proc. edited by N. Kalantar-Nayestanaki, R.G.E. Timmermans, B.L.G. Bakker (AIP Conference Proceedings: 768, 2005) 126-128* – Invited talk

10th International Conference on the Structure of Baryons (BARYON'04), Palaiseau, France, 25-29 October 2004

G. Quémener – Experimental review of the nucleon electroweak form factors – *Nucl. Phys. A 755 (2005)143-150* – Invited talk

3rd Asia-Pacific Conference on Few-Body Problems in Physics, Nakhon Ratchasima, Thailand, 26-30 July 2005

S. Kox – Nucleon strange and axial form factors from parity violation experiments at JLab – Invited talk

4th International Workshop on Neutrino-Nucleus Interactions in the Few-GeV Region, Okayama, Japan, 26-29 September 2005

C. Furget – The nucleon strangeness form factor with G0 – *A paraître dans Nucl. Phys. B - Proc. Suppl.* – Invited talk

▪ **GRAAL**

Workshop on the Physics of Excited Nucleons (NSTAR 2004), Grenoble, France, 24-27 March 2004

A. Fantini et al. (J.-P. Bocquet, A. Lleres, D. Rebreyend, F. Renard) – η and π^0 photoproduction on the deuteron: Beam asymmetries – *Proceedings edited by J.-P. Bocquet et al. (World Scientific, 2004) 289-292*

O. Bartalini et al. (J.-P. Bocquet, A. Lleres, D. Rebreyend) – Compton scattering of polarized photons on the proton at GRAAL – *Proceedings edited by J.-P. Bocquet et al. (World Scientific, 2004) 303-308*

8th International Workshop on Meson Production, Properties and Interactions (MESON 2004), Krakow, Poland, 4-8 June 2004

D. Moricciani et al. (J.-P. Bocquet, A. Lleres, D. Rebreyend) – Recent results from GRAAL – *Int. J. Mod. Phys. A 20 (2005) 503-513*

10th International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon (MENU'04), Beijing, China, 29 August 2004-4 September 2004

D. Rebreyend et al. (J.-P. Bocquet, A. Lleres) – Eta photoproduction on the neutron at GRAAL: Measurement of the differential cross section – *Int. J. Mod. Phys. A 20 (2005) 1554-1559* – Invited talk

▪ **Physique des réacteurs**

The Physics of Fuel Cycles and Advanced Nuclear Systems: Global Developments (PHYSOR 2004), Chicago, Illinois, USA, 25-29 April 2004

E. Merle-Lucotte, L. Mathieu, D. Heuer, J.-M. Loiseaux, A. Billebaud, R. Brissot, S. David, C. Garzenne, O. Laulan, C. Le Brun, D. Lecarpentier, E. Liatard, O. Méplan, F. Michel-Sendis, A. Nuttin, F. Perdu – Molten salt reactors and possible scenarios for future nuclear power deployment – *Proceedings (American Nuclear Society, 2004)*

A. Billebaud, J. Vollaie, R. Brissot, D. Heuer, C. Le Brun, E. Liatard, J.-M. Loiseaux, O. Méplan, E. Merle-Lucotte, A. Nuttin, F. Perdu et al. – Reactivity measurements and neutron spectroscopy in the MUSE-4 experiment – *Proceedings (American Nuclear Society, 2004)*

3rd International Workshop on Nuclear Fission and Fission-Product Spectroscopy, Château de Cadarache, Saint Paul Lez Durance, France, 11-14 May 2005

B. Jurado et al. (L. Perrot, A. Billebaud) – Determination of minor actinides fission cross sections by means of transfer reactions – *Proceedings edited by H. Goutte et al. (AIP Conference Proceedings: 798, 2005) 19-26*

7th International Symposium on Molten Salts Chemistry and Technology (MS7), Toulouse, France, 29 August-2 September 2005

C. Le Brun – Molten salts and nuclear energy production – Invited talk

E. Merle-Lucotte, L. Mathieu, D. Heuer, A. Billebaud, R. Brissot, C. Le Brun, E. Liatard, J.-M. Loiseaux, O. Méplan, A. Nuttin, J. Wilson – Influence of the reprocessing on molten salt reactor behaviour

19th Nuclear Physics Divisional Conference of the EPS: New Trends in Nuclear Physics Applications and Technology, Pavia, Italy, 5-9 September 2005

J.-M. Loiseaux, S. David – Innovative systems for sustainable nuclear energy generation and waste transmutation – Invited talk

Technical Meeting on Fissile Material Management Strategies for Sustainable Nuclear Energy, Vienna, Austria, 12-15 September 2005

C. Le Brun, L. Mathieu, D. Heuer, A. Nuttin – Impact of the MSBR concept technology on long-lived radio-toxicity and proliferation resistance – Invited talk

International Conference on Nuclear Energy Systems for Future Generation and Global Sustainability (GLOBAL 2005), Tsukuba, Japan, 9-13 October 2005

L. Mathieu, D. Heuer, A. Billebaud, R. Brissot, C. Garzenne, C. Le Brun, D. Lecarpentier, E. Liatard, J.-M. Loiseaux, O. Méplan, E. Merle-Lucotte, A. Nuttin – Proposal for a simplified thorium molten salt reactor – *Proceedings (2005) 428*

F. Michel-Sendis, **O. Méplan, S. David, A. Nuttin, A. Bidaud, J.N. Wilson, O. Laulan** – Plutonium incineration and uranium 233 production in thorium fueled light water reactors – *Proceedings (2005) 132*

European Nuclear Conference. Nuclear Power for the XXIst Century: From basic research to high-tech industry (ENC 2005), Versailles, France, 11-14 December 2005

E. Merle-Lucotte, D. Heuer, L. Mathieu, C. Le Brun – Molten Salt Reactor: Deterministic safety evaluation – *Proceedings (ENS-ANS-SFEN, 2005) 052*

A. Nuttin, O. Méplan, J. Wilson, F. Perdu – Coupling Monte-Carlo transport code MCNP and thermohydraulic code TRIO-U for 3D safety analysis. First tests and applications on molten salt reactors – *Proceedings (ENS-ANS-SFEN, 2005)* – Poster

O. Méplan, A. Nuttin, O. Laulan, S. David, F. Michel-Sendis, J. Wilson – MURE: MCNP Utility for Reactor Evolution - Description of the methods, first applications and results – *Proceedings (ENS-ANS-SFEN, 2005)* – Poster

▪ **Structure nucléaire**

8th International Spring Seminar on Nuclear Physics, Paestum, Italy, 23-27 May 2004

J. Genevey, J.-A. Pinston et al. – Neutron-rich In and Cd isotopes in the ¹³²Sn region – *Proceedings edited by A. Covello (World Scientific, 2005) 213-222* – Invited talk

Conference on Nuclei at the Limits, Argonne, Illinois, USA, 26-30 July 2004

E. Clément et al. (**J. Genevey, J.-A. Pinston**) – Shape coexistence in light krypton isotopes – *Proceedings edited by D. Seweryniak and Teng Lek Khoo (AIP Conference Proceedings: 764, 2005) 55-61*

3rd International Workshop on Nuclear Fission and Fission-Product Spectroscopy, Château de Cadarache, Saint Paul Lez Durance, France, 11-14 May 2005

G.S. Simpson, **J. Genevey, J.-A. Pinston, I. Tsekhanovich, W. Urban** – Recent results and future prospects for nuclear structure studies at the ILL – *Proceedings edited by H. Goutte et al. (AIP Conference Proceedings: 798, 2005) 137-144*

J.-A. Pinston, J. Genevey, G.S. Simpson, W. Urban – Shape coexistence in odd and odd-odd nuclei in the A ~ 100 region – *Proceedings edited by H. Goutte et al. (AIP Conference Proceedings: 798, 2005) 149-156*

A. Scherillo et al. (**J. Genevey, J.-A. Pinston**) – Neutron-rich In and Cd isotopes close to the doubly-magic ¹³²Sn – *Proceedings edited by H. Goutte et al. (AIP Conference Proceedings: 798, 2005) 145-148*

International Symposium on Exotic Nuclear Systems (ENS'05), Debrecen, Hungary, 20-24 June 2005

D. Sohler et al. (**A. Gizon, J. Gizon**) – High-spin structure of ¹⁰²Ru – *Proceedings edited by Z. Gácsi et al. (AIP Conference Proceedings: 802, 2005) 313-314*

J. Timar et al. (**A. Gizon, J. Gizon**) – Composite chiral bands in the A ~ 105 mass – *Proceedings edited by Z. Gácsi et al. (AIP Conference Proceedings: 802, 2005) 206-210*

16th International School on Nuclear Physics, Neutron Physics, and Nuclear Energy, Varna, Bulgaria, 19-26 September 2005

J.-A. Pinston – Shape coexistence in odd and odd-odd nuclei in the A = 100 region – Invited talk

◊ **Activités pluridisciplinaires**

▪ **Interface physique-biologie**

7th International Workshop on Radiation Imaging Detectors (IWORID-7), Grenoble, France, 4-7 July 2005

M.-L. Gallin-Martel, P. Martin, F. Mayet, J. Ballon, G. Barbier, C. Barnoux, J. Berger, D. Bondoux, O. Bourrion, J. Collot, D. Dzahini, R. Foglio, L. Gallin-Martel, A. Garrigue, S. Jan, P. Petit, P. Stassi, F. Vezzu, E. Tournefier – Experimental study of a liquid Xenon PET prototype module – *To appear in NIM A*

- **Plasmas**

International Conference on Magnetism (ICM 2003), Rome, Italy, 27 July-1 August 2003

D. Vempaire, S. Miraglia, A. Sulpice, L. Ortega, E.K. Hlil, D. Fruchart, **J. Pelletier** – Structure and magnetic properties of nickel nitride thin films synthesized by plasma-based ion implantation – *J. Magn. Magn. Mat. 272-276 (2004) 843-844*

10th International Conference on Ion Sources, Dubna, Russia, 8-13 September 2003

A.A. Ivanov, C. Rouillé, M. Bacak, Y. Arnal, **S. Béchu, J. Pelletier** – H⁻ ion production in ECR driven multicusp volume source – *Rev. Sci. Instrum. 75 (2004) 1750-1753*

7th International Workshop on Plasma-Based Ion Implantation, San Antonio, Texas, USA, 16-19 September 2003

S. Béchu, O. Maulat, Y. Arnal, D. Vempaire, A. Lacoste, J. Pelletier – Multi-dipolar plasmas for plasma-based ion implantation and plasma-based ion implantation and deposition: interest and perspectives – *Surf. Coat. Technol.* 186 (2004) 170-176

D. Vempaire, **J. Pelletier**, D. Fruchart, S. Miraglia, **S. Béchu, Y. Arnal** – Plasma-based ion implantation: a valuable route for the elaboration of innovative materials – *Surf. Coat. Technol.* 186 (2004) 245-247

C. Vallée, F. Thiéry, Y. Arnal, **J. Pelletier** – PECVD and PIID processing of diamond-like carbon – *Surf. Coat. Technol.* 186 (2004) 146-152

8th International Conference on Condensed Matter and Statistical Physics, Marrakech, Morocco, 21-24 September 2004

D. Vempaire, E.K. Hlil, R. Gouttebaron, L. Ortega, A. Sulpice, S. Miraglia, D. Fruchart, **J. Pelletier** – Structure and magnetic properties of Mn₄N thin films synthesised by plasma-based ion implantation – *Physica A* 358 (2005) 136-141

International Workshop on Plasma Polymers and Related Materials, Antalya, Turkey, 7-9 October 2004

A. Lacoste, J. Pelletier, S. Béchu – Plasma scaling up: fundamentals and applications – *Proceedings edited by M. Mutlu et al. (Hacettepe University Press, Ankara, 2005) 1-8* – Invited talk

12th International Congress on Plasma Physics, Nice, France, 25-29 October 2004

D. Vempaire, **J. Pelletier, A. Lacoste, S. Béchu, J. Sirou, S. Miraglia, D. Fruchart** – Plasma-based ion implantation: a valuable technology for the elaboration of innovative materials and nanostructured thin films – *Plasma Phys. Control. Fusion* 47 (2005) A153-A166 – Invited talk

11th International Conference on Ion Sources (ICIS'05), Caen, France, 12-16 September 2005

P. Svarnas, M. Bacal, A.A. Ivanov Jr., **S. Béchu, J. Pelletier** – Progress with ECR driven multicusp ion source at École Polytechnique

◆ Physique théorique

Conference on Physics of Fundamental Interactions, Moscow, Russia, 1-5 March 2004 I.M. Narodetsky,

C. Semay, **B. Silvestre-Brac, Y. Simonov, M.A. Trusov** – Pentaquarks in the Jaffe-Wilczek Approximation – *Phys. Atom. Nucl.* 68 (2005) 536-540

Workshop on the Physics of Excited Nucleons (NSTAR 2004), Grenoble, France, 24-27 March 2004

B. Desplanques – Form factors of hadronic systems in various forms of relativistic quantum mechanics – *Proceedings edited by J.-P. Bocquet et al. (World Scientific, 2004) 239-245* – Invited talk

C. Semay, **B. Silvestre-Brac, I.M. Narodetskii** – Pentaquark spectra in the diquark picture – *Proceedings edited by J.-P. Bocquet et al. (World Scientific, 2004) 90-95* – Invited talk

12th International Workshop on Deep Inelastic Scattering (DIS), Strbske Pleso, Slovakia, 14-18 April 2004

M. Klasen, G. Kramer – Factorization breaking in diffractive photoproduction of dijets – *Proceedings edited by D. Bruncko et al. (Institute of Experimental Physics, 2004) 492-498*

International Workshop on Parity Violation and Hadronic Structure (PAVI'04), Grenoble, France, 8-11 June 2004

C.H. Hyun, C.P. Liu, **B. Desplanques** – Parity violating asymmetry in $\gamma + d \rightarrow n + p$ at low energy – *Eur. Phys. J. A* 24 Supplement 2 (2005) 179-180

B. Desplanques – Parity violation in nuclear systems – *Eur. Phys. J. A* 24 Supplement 2 (2005) 171-174 – Invited talk

International Nuclear Physics Conference (INPC 2004), Göteborg, Sweden, 27 June-2 July 2004

J.-M. Richard – Recent issues in hadron spectroscopy – *Nucl. Phys. A* 752 (2005) 129c-138c – Invited talk

6th International Conference on Hyperons, Charm and Beauty Hadrons, BEACH 2004, Chicago, Illinois, USA, 27 June-3 July 2004

I.M. Narodetskii, C. Semay, **B. Silvestre-Brac, Y. Simonov** – Pentaquarks in the string dynamics – *Nucl. Phys. B Proc. Suppl.* 142(2005) 383-387

19th European Conference on Few-Body Problems in Physics, Groningen, The Netherlands, 23-27 August 2004

R. Lazauskas, **J. Carbonell** – Four nucleon systems: a zoom to the open problems in nuclear interaction – *Proceedings edited by N. Kalantar-Nayestanaki et al. (AIP Conference Proceedings: 768, 2005) 3-9*

B. Desplanques – A relativistic quantum mechanics approach inspired by the Dirac's point form – *Proceedings edited by N. Kalantar-Nayestanaki et al. (AIP Conference Proceedings: 768, 2005) 377* – Poster

10th International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon (MENU'04), Beijing, China, 29 August-4 September 2004

B. Desplanques – Nucleon and pion form factors in different forms of relativistic kinematics – *Int. J. Mod. Phys. A* 20 (2005) 1601-1606 – Invited talk

16th International Spin Physics Symposium (SPIN 2004), Trieste, Italy, 10-16 October 2004

J.-M. Richard – Speculations in hadron spectroscopy – *Proceedings edited by F. Bradamante et al. (World Scientific, 2005)* – Invited talk

BARYON'04, Palaiseau, France, 25-29 October 2004

B. Desplanques – Dirac's inspired point form and hadron form factors – *Nucl. Phys. A* 755 (2005) 303-306

HERA and the LHC: A Workshop on the Implications of HERA for LHC Physics - Final Meeting, Hamburg, Germany, 17-21 January 2005

A. Bruni, **M. Klasen**, G. Kramer, S. Schatzel – Diffractive dijet production at HERA – *Proceedings edited by A. De Roeck and H. Jung, CERN-2005-014, pp. 519-529* – Invited talk

39th Rencontres de Moriond: QCD and Hadronic Interactions at High Energy, La Thuile, Italy, 12-19 March 2005

F. De Soto – Instanton traces in lattice gluon Green functions

13th International Workshop on Deep Inelastic Scattering (DIS 05), Madison, Wisconsin, USA, 27 April-1 May 2005

M. Klasen, G. Kramer – Diffractive dijet photoproduction – *Proceedings edited by W.H. Smith and S.R. Dasu (AIP Conference Proceedings: 792, 2005) 444-448* – Invited talk

M. Klasen – Status report of NNLO QCD calculations – *Proceedings edited by W.H. Smith and S.R. Dasu (AIP Conference Proceedings: 792, 2005) 681-684* – Invited talk

11th International Conference on Elastic and Diffractive Scattering: Towards High Energy Frontiers, Blois, France, 15-20 May 2005

J.-M. Richard – Perspectives in hadron spectroscopy – Invited talk

International Conference on Low Energy Antiproton Physics (LEAP'05), Bonn – Jülich, Germany, 16-22 May 2005

J.-M. Richard – Dynamics of hyperon-antihyperon production – *Proceedings edited by D. Grzonka et al. (AIP Conference Proceedings: 796, 2005) 102-107* – Invited talk

M. Elchikh, **J.-M. Richard** – Spin observables in antiproton-proton to AntiLambda-Lambda and density-matrix constraints – *Proceedings edited by D. Grzonka et al. (AIP Conference Proceedings: 796, 2005) 108-111*

12th International QCD Conference (QCD05), Montpellier, France, 4-9 July 2005

J.-M. Richard – Light and heavy multi-quark spectroscopy – Invited talk

F. De Soto, J. Carbonell, C. Roiesnel, P. Boucaud, J.-P. Leroy, O. Pene – Nuclear models on a lattice – Invited talk

Workshop on Light-Cone QCD and Nonperturbative Hadron Physics (LC 2005), Cairns, Australia, 7-15 July 2005

V.A. Karmanov, **J. Carbonell** – Bethe-Salpeter equation in Minkowski space with cross-ladder kernel

Mini-Workshop on Exciting Hadrons, Bled, Slovenia, 11-18 July 2005

J.-M. Richard, F. Stancu – Double charm hadrons revisited – *Bled Workshops in Physics 6 n° 1 (2005)* – Invited talk by F. Stancu

3rd Asia-Pacific Conference on Few-Body Problems in Physics, Nakhon Ratchasima, Thailand, 26-30 July 2005

C.H. Hyun, C.-P. Liu, **B. Desplanques** – Parity violation in pp scattering and vector-meson weak-coupling constants

B. Desplanques – Form factors in relativistic quantum mechanics approaches and space-time translation invariance

11th International Conference on Hadron Spectroscopy (Hadron05), Rio de Janeiro, Brazil, 21-26 August 2005

B. Silvestre-Brac, J. Vijande, F. Fernandez, A. Valcarce – Scalar mesons as a mixing of two- and four-quark states

Workshop on the Future of the Theory- and Experiment-based Nuclear Data Evaluation: Perspectives on Nuclear Data for the Next Decade (P(ND)²), Bruyères-le-Châtel, France, 26-28 September 2005

R. Lazauskas, **J. Carbonell** – Mysteries of the lightest nuclear systems – Invited talk

Ringberg Workshop on New Trends in HERA Physics, Ringberg Castle, Tergensee, Germany, 2-7 October 2005

M. Klasen – From factorization to its breaking in diffractive dijet photoproduction – Invited talk

International Workshop on Critical Stability of Few-Body Quantum Systems, Dresden, Germany, 17-22 October 2005

J.-M. Richard – Borromean bound states – Invited talk

◊ Accélérateurs et Sources d'ions

9th European Particle Accelerator Conference (EPAC 2004), Lucerne, Switzerland, 5-9 July 2004

R. Duperrier et al. (**J.-M. De Conto**, **E. Froidefond**) – Status report on the beam dynamics developments for the SPIRAL 2 project – *Proceedings Web edition, JACoW (2004) 2023-2025*

T. Junquera et al. (**M. Fruneau**, **Y. Gomez-Martinez**, **E. Vernay**, **F. Vezzu**) – High intensity linac driver for the SPIRAL-2 project: Design of superconducting 88 MHz quarter wave resonators (beta 0.12), power couplers and cryomodules – *Proceedings Web edition, JACoW (2004) 1285-1287*

16th International Workshop on ECR Ion Sources (ECRIS'04) Berkeley, California, USA, 26-30 September 2004

D. Kanjilal et al. (**P. Sortais**) – First High Temperature Superconducting ECRIS – *Proceedings edited by M. Leitner (AIP Conference Proceedings: 749, 2005) 19-22*

T. Thuillier, J.C. Curdy, T. Lamy, A. Lachaize, A. Ponton, P. Sole, P. Sortais, J.-L. Vieux-Rochaz – High current beam transport with Phoenix 28 GHz: experiment and simulation – *Proceedings edited by M. Leitner (AIP Conference Proceedings: 749, 2005) 41-46*

F. Ames et al. (**T. Lamy**) – Charge state breeding with an ECRIS for ISAC at TRIUMF – *Proceedings edited by M. Leitner (AIP Conference Proceedings: 749, 2005) 147-150*

I. Izotov et al. (**R. Geller, T. Lamy, P. Sortais, T. Thuillier**) – Formation of ion beam from high density plasma of ECR discharge – *Proceedings edited by M. Leitner (AIP Conference Proceedings: 749, 2005) 219-222*

11th International Conference on Ion Sources (ICIS'05), Caen, France, 12-16 September 2005

T. Lamy, R. Geller, P. Sortais, T. Thuillier – Status of charge breeding with ECRIS – *To appear in Rev. Sci. Instrum.* – Invited talk

F. Ames et al. (**T. Lamy**) – Charge state breeding of radioactive ions with an ECRIS at Triumf – *To appear in Rev. Sci. Instrum.* – Poster

P. Delahaye et al. (**T. Lamy, P. Sortais**) – Recent results with the Phoenix Booster at ISOLDE – *To appear in Rev. Sci. Instrum.*

R. Geller, T. Lamy, P. Sortais – Charge breeding of ISOL radioactive ions using ECR ion traps based on long range ion/ion collisions – *To appear in Rev. Sci. Instrum.*

V. Skalyga et al. (**T. Lamy, P. Sortais, T. Thuillier**) – Gas breakdown in ECR ion sources – *To appear in Rev. Sci. Instrum.*

T. Thuillier, H. Koivisto, T. Lamy, P. Sortais, P. Suominen, O. Tarvainen – A-Phoenix, a new ECR Ion source for the Spiral II facility – *To appear in Rev. Sci. Instrum.*

◆ **Services techniques**

CHEP'04, Interlaken, Switzerland, 27 September-1 October 2004

D.L. Adams et al. (**S. Albrand, J. Fulachier**) – ATLAS distributed analysis – *Proceedings edited by A. Aimar et al. (2005) 1115-1118*

S. Albrand, J. Fulachier, J. Collot, F. Lambert – The TAG Collector - A tool for ATLAS code release

management – *Proceedings edited by A. Aimar et al. (2005) 531-534* – Poster

J. Fulachier, S. Albrand – ATLAS metadata interfaces (AMI) and ATLAS metadata catalogs – *Proceedings edited by A. Aimar et al. (2005) 494-497*

K. Merritt et al. (**S. Albrand, J. Fulachier**) – Housing metadata for the common physicist using a relational database – *Proceedings edited by A. Aimar et al. (2005) 842-845*

7th International Workshop on Radiation Imaging Detectors (IWORID-7), Grenoble, France, 4-7 July 2005

O. Bourrion, L. Gallin-Martel – An integrated CMOS Time to Digital Converter for coincidence detection in a Liquid Xenon PET prototype – *To appear in NIM A*

Conférences : Communications sans actes

◇ Quarks, Leptons, Interactions fondamentales

Réunion GdR SUSY, Clermont-Ferrand, France, 5-7 juillet 2004

M. Schäfer - Étude du boson Z' de Kaluza-Klein dans le canal $Z' \rightarrow e^+e^-$ dans l'expérience Atlas@LHC

Réunion GdR SUSY, Grenoble, France, 6-8 avril 2005

A.-M. Magnan – Recherche de particules SUSY en R-parité violée avec $D\bar{0}$

SOCLE-2005: Séminaire Orienté vers une Contribution au Linéaire à Électrons, Grenoble, France, 17-18 mai 2005

J.-Y. Hostachy - Contribution Grenobloise au futur détecteur de l'ILC

13th International Conference on Supersymmetry and Unification of Fundamental Interactions, (SUSY 2005), Durham, United Kingdom, 18-23 July 2005

G. Sajot – Search for squarks and gluinos with the $D\bar{0}$ detector – Invited talk

◇ Cosmologie, Rayons cosmiques

Meeting on Exotic Signals at Hadron Colliders, Durham, United Kingdom, 31 March-2 April 2004

A. Barrau – Microscopic black holes as a probe for new physics – Invited talk

Tensions with Standard Models, Astroparticle Meeting, Toulouse, France, April 2004

J. Grain – Primordial black holes

Cosm'Alpes Meeting, Grenoble, France, 23 avril 2004

E. Moulin – Détection directe de WIMPs avec l'hélium 3

J. Grain – Gauss-Bonnet black holes at the LHC

EUSO SIM SDA ESAF Meeting, Turin, Italy, May 2004

S. Moreggia – Status of atmospheric processes simulation in ESAF

European School of High Energy Physics, Sant Feliu de Guixols, Spain, 30 May-12 June 2004

E. Moulin – MACHe3, a prototype for non-baryonic dark matter search: keV event detection and multicell correlation – Poster

Colloque « Symétrie, asymétrie, dissymétrie », Paris, France, 3-4 juin 2004

A. Barrau – Symétries rémanentes et spontanément brisées en cosmologie – Invited talk

20th IAP Colloquium “CMB Physics and Observation”, Paris, France, 28 June-2 July 2004

M. Tristram – Archeops improved results on angular power spectrum

Réunion GdR SUSY, Clermont-Ferrand, France, 5-7 juillet 2004

E. Moulin – Supersymmetric dark matter search via axial interaction with ^3He

A. Barrau – Microscopic black holes at colliders – Invited talk

International Workshop on Particle Physics and the Early Universe (Cosmo04), Toronto, Canada, 17-21 September 2004

M. Tristram – Archeops improved results on angular power spectrum

1st International Conference on Small and Medium Scale Underground Science, Rustrel, France, 22-24 September 2004

E. Moulin – MIMAC-He3: A new generation detector for searching the non-baryonic dark matter

Réunion EUSO-France, Grenoble, France, 8 novembre 2004

S. Moreggia – Statut de la simulation des processus atmosphériques dans ESAF

Euro GDR Supersymmetry, 4th Meeting, Frascati, Italy, 25-27 November 2004

J. Grain – Black holes evaporation beyond general relativity

E. Moulin – Supersymmetric dark matter search with spin-dependent interaction in ^3He

Primordial Universe, Montpellier, France, December 2004

J. Grain – Black holes beyond general relativity

2nd Workshop on Large TPC for Low Energy Rare Event Detection, Paris, France, 20-21 December 2004

D. Santos – MIMAC-He3: MIMAC-tpc MAtrix of Chambers of ^3He

Réunion GdR SUSY, Grenoble, France, 6-8 avril 2005

A. Barrau – Bulk and brane decay of a $(4+n)$ -dimensional Schwarzschild-De-Sitter black hole

E. Moulin – Supersymmetric dark matter search via spin-dependent interaction with ^3He

13th General Conference of the European Physical Society, “Beyond Einstein – Physics for the 21st Century”, Bern, Switzerland, 11-14 July 2005

J. Grain – Black holes beyond general relativity

École Prédoctorale Internationale – Session X: Matière Noire et Neutralinos. Observations Astronomiques et Stratégies Expérimentales, Les Houches, France, 28 août-9 septembre 2005

A. Barrau – Troux noirs primordiaux – Invited talk

Polarisation 2005 “Sky Polarisation at Far-infrared to Radio Wavelengths”, Orsay, France, 12-15 September 2005

M. Tristram, J.F. Macías-Pérez, N. Ponthieu – Polarized angular power spectra of galactic dust radiation measured by Archeops

J. Aumont, J.F. Macías-Pérez, M. Tristram, D. Santos – Component separation of polarized data – Application to Planck

Workshop on the Primordial Universe: Cosmology and Astroparticles, Montpellier, France, November 2005

J. Grain – Some aspects of black hole physics beyond general relativity

E. Moulin – MIMAC-He3: Helium3 detector for non baryonic dark matter

◊ Hadrons et Noyaux

Les Doctoriales de Grenoble, La Ferrière d’Allevard, France, 28 mars-2 avril 2004

B. Guillon – L’étrangeté dans le nucléon: expérience G0

Workshop ILL-IN2P3-CEA - The Neutron: A Tool and an Object for Fundamental and Nuclear Physics and Applications, Grenoble, France, 6-7 May 2004

D. Rebreyend – nEDM@PSI

Conference on Nuclei at the Limits, Argonne, Illinois, USA, 26-30 July 2004

J. Timar J. et al. (**A. Gizon, J. Gizon**) – Experimental evidence for chirality in the odd-A ^{105}Rh

GdR Physique Subatomique et Calculs sur Réseau, Autrans, France, 6-7 juin 2005

S. Kox – Physique hadronique au Jefferson Laboratory

D. Rebreyend – La mesure du moment électrique dipolaire du neutron

User Group Workshop and Annual User Meeting, Newport News, Virginia, USA, 20-25 June 2005

M. Mazouz – The neutron DVCS experiment at Jlab/ Hall A – Invited talk

6th European Research Conference on Electromagnetic Interactions with Nucleons and Nuclei (EINN 05), Milos, Greece, 19-24 September 2005

B. Guillon for the G0 collaboration – The strange form factors of the nucleon: Results from the G0 forward angle measurement

M. Mazouz – Deeply virtual Compton scattering on the neutron – Invited talk

E. Voutier – Longitudinal/transverse separation in $^3\text{He}(e,e'p)d$ at large Q^2 – Invited talk

Workshop on Nucleon Form Factors, Frascati, Italy, 12-14 October 2005

S. Kox – Electroweak form factor: From parity violation experiment to nucleon structure

◊ Activités pluridisciplinaires

École Thématique « Couches minces de carbone amorphe et nanostructuré », GDR Carbone, Marcoux, France, 3-8 juin 2004

J. Pelletier – Procédés de synthèse de couches de carbone: diagnostics in situ – Invited talk

17th ESCAMPIG, Constanta, Roumania, 1-5 September 2004

A. Lacoste, O. Maulat, L. Latrassé, Y. Arnal, J. Pelletier – Millimetric discharges sustained by microwaves: determination of scaling laws

Japan-France Cooperative Seminar “Electromagnetic Processing of Materials” Nagoya, Japan, 4-7 October 2004

J. Pelletier, S. Béchu, A. Lacoste – Low-pressure plasma technologies for thin film processing – Invited talk

15th International Colloquium on Plasma Processes (CIP 2005), Autrans, France, 5-9 June 2005

S. Béchu, D. Vempaire, J. Sirou, J. Pelletier – Multi-dipolar plasma assisted sputtering: advantages, performance and applications – Talk

L. Latrassé, A. Lacoste, J. Sirou, J. Pelletier – Matrix plasmas: a new kind of high density plasmas based on the distribution of microwaves on coaxial applicators – Poster

T.V. Tran, S. Béchu, J. Sirou, A. Bès, A. Lacoste, J. Pelletier – Microwave multi-dipolar plasmas: characterization and modelling of an elementary dipolar source – Poster

Colloque: Innovez dans le Biomédical: Propreté et traçabilité garantes de la responsabilité, Archamps, France, 9 juin 2005

J. Pelletier, M. Moisan – Stérilisation par plasmas: modes d’action, performances, limitations – Invited talk

8th International Workshop on Plasma-Based Ion Implantation and Deposition (PBII&D 2005), Chengdu, China, 18-22 September 2005

D. Vempaire, J. Pelletier, A. Lacoste, S. Béchu, A. Bès, J. Sirou, D. Fruchart, S. Miraglia – Modification of electronic or magnetic properties of thin films by plasma-based ion implantation: application to the elaboration of nanostructures

4^{èmes} Journées du Réseau Plasmas Froids, Bonascre, France, 10-12 octobre 2005

L. Latrasse, A. Lacoste, J. Sirou, A. Bès, J. Pelletier – Spéculations sur le mode de couplage d'une nappe de plasma haute densité entretenue par micro-ondes

T.V. Tran, S. Béchu, J. Sirou, A. Bès, A. Lacoste, J. Pelletier – Plasmas multi-dipolaires micro-onde : questions autour de la modélisation de sources élémentaires de plasma

◇ Physique Théorique

Journées Semi-classiques Moléculaires, Grenoble, France, 2-4 février 2004

R. Arvieu – Dynamique classique de molécules pulsées : orientation, alignement et catastrophes – Exposé invité

Rencontres des Particules, Lyon, France, 18-19 mars 2004

M. Klasen – Factorization breaking in diffractive photoproduction of dijets

International Scientific Meeting of the Belgian Physical Society, Mons, Belgium, 25-26 May 2004

C. Semay, **B. Silvestre-Brac**, I.M. Narodetskii – Pentaquarks spectra in the diquark picture

Workshop on Low-x Physics, Prague, Czech Republic, 15-18 September 2004

M. Klasen – Factorization breaking in diffractive photoproduction of dijets

4th Meeting of the EuroGDR on Supersymmetry, Frascati, Italy, 25-27 November 2004

G. Bozzi – Slepton production in polarized hadron collisions

Workshop on Exotic Baryons, Trento, Italy, 21-24 February 2005

J.-M. Richard – Multiquarks and other possible exotics

INT Workshop on Effective Field Theory, QCD, and Heavy Hadrons, Seattle, Washington, USA, 21 March-10 June 2005

M. Klasen – J/ψ production in photon-photon collisions at NLO – Invited talk

Rencontres de Physique des Particules, Marseille, France, 23-25 mars 2005

M. Klasen – Production des sleptons avec des hadrons polarisés

Réunion GdR SUSY, Grenoble, France, 6-8 avril 2005

B. Fuks – Non-diagonal stop production at hadron colliders – Invited talk

Congresso di Fisica Teorica, Cortona, Italy, 25-28 May 2005

G. Bozzi – Slepton and squark pair production at (polarized) hadron colliders

Resonances in QCD Workshop, Trento, Italy, 11-16 July 2005

B. Silvestre-Brac – Role of the tetraquarks for the light scalar mesons – Invited talk

13th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2005), Durham, United Kingdom, 18-23 July 2005

G. Bozzi – Non-diagonal and mixed squark production at hadron colliders

3rd Asia-Pacific Few-Body Conference (APFB05), Nakhon Ratchasima, Thailand, 26-30 July 2005

B. Desplanques – A method for ensuring the Lorentz invariance of static properties in the instant form of relativistic quantum mechanics – Poster

B. Desplanques – Relativistic quantum mechanics approach to the pion charge form factor and its asymptotic behavior – Poster

Congrès Général de la SFP et de la BPS, Lille, France, 29 août-2 septembre 2005

B. Fuks – Slepton and squark pair production at (polarized) hadron colliders

Workshop on Theoretical Problems in Fundamental Neutron Physics, Columbia, South Carolina, USA, 14-15 October 2005

B. Desplanques – Weak couplings: a few remarks

◇ Services techniques

CHEP'04, Interlaken, Switzerland, 27 September-1 October 2004

D.L. Adams et al. (**S. Albrand, J. Fulachier**) – ATLAS distributed analysis

S. Albrand, J. Fulachier, J. Collot, F. Lambert – The TAG Collector - A tool for ATLAS code release management

S. Albrand, J. Fulachier – ATLAS metadata interfaces (AMI) and ATLAS metadata catalogs

R. St.Denis et al. (**S. Albrand, J. Fulachier**) – Housing metadata for the common physicist using a relational database

Rapports et Notes

- F. Montanet** – EUSO duty cycle: Moon and sun light effects (Version 2) – LPSC 04.12
- A. Nuttin** – Proposition d'un modèle de cœur pour le RSF thorium minimisant la quantité de modérateur graphite en cœur – LPSC 04.34
- E. Merle-Lucotte, D. Heuer, C. Le Brun, J.-M. Loiseaux** – Étude des scénarios de déploiement mondial de l'électronucléaire – LPSC 04.68
- O. Bourrion, J.-C. Cerri, M. Koubaa** – Carte VME codeuse de charge: QDC16 – LPSC 04.101
- N. Brambilla et al. (**J.-M. Richard**) – Heavy quarkonium physics – CERN-2005-005, LPSC 04.105
- S. Viret, F. Ohlsson-Malek, M. Smizanska** – Simulation of online selection for $B_d^0 \rightarrow K^{*0}\gamma$ and $B_s^0 \rightarrow \phi\gamma$ decays at ATLAS experiment – ATL-PHYS-PUB-2005-006, LPSC 05.05
- O. Bourrion, L. Gallin-Martel** – Réalisation d'un convertisseur temps numérique en technologie AMS CMOS 0,35 micron – LPSC 05.07
- L. Mathieu, D. Heuer, R. Brissot, C. Le Brun, E. Liatard, J.-M. Loiseaux, O. Méplan, E. Merle-Lucotte, A. Nuttin, J. Wilson, C. Garzenne, D. Lecarpentier, E. Walle** – Le Thorium Molten Salt Reactor: Au-delà du MSBR – LPSC 05.09
- J.-Y. Hostachy, M. Yamouni, B. Belhorma, B. Lund-Jensen, S. Rydström** – Evaporating short-circuits in the ATLAS liquid argon barrel presampler – ATL-LARG-PUB-2005-003, LPSC 05.10
- L. Gallin-Martel, D. Tourres** – Réalisation d'un convertisseur charge tension en technologie AMS SiGe 0,35 micron – LPSC 05.19
- G. Bosson, R. Foglio, J.-S. Réal** – Splitter-sommeur VME – LPSC 05.86
- D. Bondoux, R. Brissot, M. Fruneau, D. Marchand, J.-A. Pinston, E. Vernay, A. Olivier, D. Gardes, M. Magistris, S. Million, T. Sauvage** – IPHI - Irradiations de l'arrêt faisceau en nickel par des protons de 3 MeV – LPSC 05.87
- J. Bouvier** – SPLITTER_TRIGGER board: Board which splits a bus of 32 differential ECL input into 3 bus of 32 differential ECL output and generate a conditional trigger signal in NIM mechanical module – LPSC 05.90
- J. Bouvier** – MPS_board: Board which generates an interface between the primary data acquisition Crate and the French Data Acquisition crate for the MPS signal in the G0 experiment (included a MPS signal generator test) – LPSC 05.91
- J.-F. Muraz, M. Tur, D. Lebrun, J. Chauvin, P. Stassi** – Land and sea BRDF laboratory measurements at 360 nm in view of ground reflected Cherenkov light detection in EUSO – LPSC 05.120
- J. Bouvier, C. Furget** – CEDFPD board: Board in VXI format which realizes the coincidence between the CED and the FPD detectors for the G0 experiment – LPSC 05.124
- M. Allibert, **D. Heuer, C. Le Brun** – Matériaux pour les échanges thermiques dans les réacteurs à sel fondu du cycle Th/U – LPSC 05.126
- M. Schäfer, F. Ledroit, B. Trocmé** – $Z' \rightarrow e^+e^-$ studies in full simulation (DC1) – ATL-PHYS-PUB-2005-010, LPSC 05.135
- J.-Y. Hostachy, M. Krim, D. Benchekroun** – Study of the energy resolution in the electromagnetic end-caps of the future LDC detector for the ILC – LC-DET-2005-010, LPSC 05.145
- D. Perrier, J. Etay, P. Petitpas, C. Garnier, M. Allibert, V. Ghetta, **M. Heusch, D. Heuer, J.-C. Poignet, J.-P. Caire** – Conception d'une boucle à sels fondus - Étude préliminaire – LPSC 05.146
- S. David, **A. Nuttin** – Capacité des réacteurs à sels fondus pour l'incinération des déchets et la production d'énergie – CNRS/DIR/PACE/2005.01, LPSC 05.149

Livres – Comptes-rendus de conférences

- C. Gignoux, B. Silvestre-Brac** – Problèmes corrigés de mécanique et résumés de cours. De Lagrange à Hamilton – EDP Sciences, 2004 ISBN 2868837204
- J.-L. Bobin, **E. Huffer, H. Nifenecker** – L'énergie de demain: Techniques - environnement - économie – EDP Sciences, 2005 (Collection Grenoble Sciences) ISBN 2868837719
- C. Semay, **B. Silvestre-Brac** – Relativité restreinte: Bases et applications – Dunod, 2005 (Collection Sciences-Sup) ISBN 210049483X
- Proceedings of the Workshop: Dynamics and Structure of Critically Stable Quantum Few-Body Systems, Trento, Italy, 1-5 September 2003 edited by A.S. Jensen, **J.-M. Richard, P. Duclos** – Few-Body Systems 34 (2004) 3-4
- Proceedings of the Workshop on the Physics of Excited Nucleons (NSTAR 2004), Grenoble, France, 24-27 March 2004, edited by **J.-P. Bocquet, V. Kuznetsov, D. Rebreyend** – World Scientific, 2004 ISBN 9812560904

Proceedings of the 2nd Workshop: From Parity Violation to Hadronic Structure and More (PAVT'04), Grenoble, France, 8-11 June 2004, edited by **S. Kox**, D. Lhuillier, F. Maas, J. Van de Wiele – Società Italiana di Fisica and Springer-Verlag, 2005 ISBN 3-540-25501-X

EEPO3: International Workshop Proceedings on Probing nucleons and nuclei via the (e,e'p) reaction, Grenoble, France, 14-17 October 2003, edited by **E. Voutier**, J.-M. Laget, D.W. Higinbotham – 2004

Proceedings of the Workshop on Lattice QCD: present and future, Orsay, France 14-16 April 2004, edited by **J. Carbonell** et al. – LAL Orsay, 2004

Thèses

◇ 2004

S. Saboumazrag – Réalisation du pré-échantillonneur central d'ATLAS et étude de la séparation γ/π^0 dans le calorimètre électromagnétique. 6 février 2004 – LPSC 04.04

E. Penel-Nottaris – Expérience E89-044 de diffusion quasi-élastique $^3\text{He}(e,e'p)$ au Jefferson Laboratory : analyse des sections efficaces de désintégration à deux corps en cinématique parallèle. 7 juillet 2004 – LPSC 04.36

R. Duperray – Production et propagation de noyaux légers d'antimatière dans la galaxie. 8 juillet 2004 – LPSC 04.37

S. Viret – Étude des désintégrations radiatives des mésons B dans le détecteur ATLAS. 27 septembre 2004 – LPSC 04.60

J. Vollaie – L'expérience MUSE-4 : Mesure des paramètres cinétiques d'un système sous-critique. 8 octobre 2004 – LPSC 04.67

B. Baret – Simulation et détection du rayonnement cosmique. Production d'antimatière dans l'atmosphère et étude de l'imageur Cherenkov annulaire de l'expérience AMS. 12 octobre 2004 – LPSC 04.70

D. Oropeza Rodriguez – Étude des états liés et de diffusion par la théorie quantique des champs sur le cône de lumière. 26 novembre 2004 – LPSC 04.104

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A.-M. Magnan – Recherche de particules supersymétriques se désintégrant en R-parité violée (couplage λ_{121}) dans un état final à trois leptons, avec les données du Run II de l'expérience DØ au TeVatron. 12 juillet 2005 – LPSC 05.62

M. Vargas Trevino – Contribution à l'instrumentation de l'imageur Cherenkov de l'expérience spatiale AMS. 19 juillet 2005 – LPSC 05.59

E. Moulin – Détection directe de matière sombre non-baryonique avec l'hélium 3. 28 septembre 2005 – LPSC 05.79

L. Mathieu – Cycle thorium et réacteurs à sel fondu. Exploration du champ des paramètres et des contraintes définissant le « Thorium Molten Salt Reactor ». 26 septembre 2005 – LPSC 05.82

M. Tristram – De Archeops à Planck : analyse des anisotropies du fond diffus cosmologique. 30 septembre 2005 – LPSC 05.88

B. Guillon – Contribution du quark étrange à la structure électromagnétique du nucléon : les premiers résultats de l'expérience DØ. 4 octobre 2005 – LPSC 05.89

N. Thiollière – Mesures de sections efficaces de diffusion élastique des neutrons sur le carbone et le fluor dans le domaine épithermique sur la plateforme PEREN. 12 octobre 2005 – LPSC 05.94

Habilitations à Diriger des Recherches

A. Barrau – À la lumière des trous noirs primordiaux. 15 juin 2004 – LPSC 04.29

A. Lucotte – L'énigme de la génération des masses : La recherche du Higgs dans l'expérience DØ auprès du collisionneur proton-antiproton de Fermilab et la mesure des oscillations neutrinos à OPERA. 30 septembre 2004 – LPSC 04.61

C. Renault – Étude de fonds diffus cosmologiques : Mesure indirecte du fond infra-rouge et mesure directe du fond millimétrique. 17 mars 2005 – LPSC 05.12

E. Voutier – Dynamique et structure des noyaux légers en diffusion (e,e'p) à grandes impulsions. 30 septembre 2005 – LPSC 05.80

Séminaires donnés par des personnels du LPSC

A. Barrau

- Les trous noirs primordiaux, Observatoire de Strasbourg, avril 2005
- Les ondes gravitationnelles avec LISA, IPN Lyon, avril 2005
- L'expérience LISA, CPPM Marseille, mai 2005

C. Bérat

- EUSO, Observatoire spatial des rayons cosmiques aux énergies extrêmes
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A. Billebaud

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G. Bozzi

- The q_T spectrum of the Higgs boson at the LHC, LPSC Grenoble, septembre 2004

B. Desplanques

- About the point form within relativistic quantum mechanics, Université de Montpellier, novembre 2004
- Relativistic quantum mechanics: recent developments, Université de Salamanque, novembre 2004
- Implementing relativity in the description of few-body properties: quantum mechanics approaches, South Carolina University, Columbia, USA, October 2005
- Parity violation in nuclear systems, Sungkyunkwan University, Suwon, Corée, October 2005

J. Carbonell

- What we have done and what is going on in the Grenoble Light-Front Club, LPM Montpellier, novembre 2004
- Calculs sur réseau en physique nucléaire, Subatech Nantes, avril 2005
- États liés en théorie quantique des champs: de Bethe-Salpeter au réseau, Université de Séville, Espagne, mai 2005
- Nuclear models in the lattice, LPC Clermont-Ferrand, octobre 2005

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J.-Y. Hostachy

- Le projet ILC, Université Hassan II Aïn Chock de Casablanca, Maroc, septembre 2005

M. Klasen

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S. Kox

- Physique hadronique au Jefferson Laboratory: Résultats et perspectives avec les sondes électromagnétique et faible de CEBAF, Subatech Nantes, mai 2004
- L'expérience G0 (et consorts): De la violation de la parité à la structure hadronique... et plus, IPN Lyon, mars 2005

J. Macías-Pérez

- The Archeops experiment: CMB temperature anisotropies and dust polarised emission, Santander, Espagne, 2004

E. Moulin

- MIMAC-He3, projet de détecteur de matière sombre supersymétrique avec l'hélium 3
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K.V. Protasov

- Constraints on non-Newtonian gravity from the experiment on neutron quantum states in the earth's gravitational field, IPN Orsay, juin 2004
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D. Rebreyend

- Nucleon spectroscopy via meson photoproduction with the GRAAL facility at ESRF, ILL Grenoble, juillet 2005

J.-M. Richard

- Recent developments in hadron spectroscopy, Université de Liège, Belgique, décembre 2004
- Hyperon-antihyperon production, Université de Liège, Belgique, mai 2005

O. Rossetto

- Sistema inalambrico para aplicaciones biomédicas: Electrónico de tratamiento de la señal
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