

Publications

- *Ouvrages*

- [1] « Combinaison des observables en cosmologie », Strasbourg 2008, School of Statistics (SOS08), chapitre d'un livre, Web of Conference, European Physical Journal.
- [2] « Physique et mécanique, une initiation à la résolution des problèmes de physique », Presse Universitaire de Provence (2015), à paraître. Livre de 386 pages.

- *Articles dans des revues internationales*

- [3] Probing quark compositeness at hadronic colliders : the case of polarized beams (Avec P. Taxil), **Physics Letters B** 364, 181 (1995).
- [4] Spin asymmetries in one-jet production at RHIC with polarized proton beams : the effects of a hadrophilic Z' (Avec P. Taxil), **Physics Letters B** 383, 355 (1996).
- [5] HERA prospects on compositeness and new vector bosons (Avec P. Chiappetta), **Physics Letters B** 389, 89 (1996).
- [6] Discovery limits for a new contact interaction at future hadronic colliders with polarized beams (Avec P. Taxil), **Physical Review D** 55, 4480 (1997).
- [7] Sensitivity to a new right-handed charged current in polarized hadronic collisions at RHIC (Avec P. Taxil), **Physics Letters B** 404, 302 (1997).
- [8] Testing various polarized parton distributions at RHIC (Avec J. Soffer), **Nuclear Physics B** 509, 297 (1998).
- [9] A light leptophobic Z' in polarized hadronic collisions (Avec P. Taxil), **Physics Letters B** 441, 376 (1998).
- [10] Hunting for contact interactions at HERA with polarized lepton and proton beams, **European Physical Journal C** 8, 283 (1999).
- [11] Single top production at the LHC as a probe of R parity violation (Avec P. Chiappetta (CPT), A. Deandrea (Uni. Heidelberg), E. Nagy (CPPM), S. Negroni (CPPM) et G. Polesello (CERN)), **Physical Review D** 61, 115008 (2000).
- [12] Search and Identification of scalar and vector leptoquarks at HERA with polarization (Avec P. Taxil et E. Tuğcu), **European Physical Journal C** 14, 165 (2000).
- [13] Discovery potential for New Physics in view of the RHIC-Spin upgrade (Avec P. Taxil), **Physics Letters B** 522, 89 (2001).
- [14] Constraints on leptophobic gauge bosons with polarized neutrons and protons at RHIC (Avec P. Taxil (CPT) et E. Tuğcu (Galatasaray)), **European Physical Journal C** 24, 149 (2002).

- [15] Probing Dark Energy with Supernovae : Bias from time evolution of the equation of state (J.-M Virey, A. Tilquin (CPPM), A. Ealet (CPPM/LAM), P. Taxil (CPT), C. Tao (CPPM), D. Fouchez (CPPM), A. Bonissent (CPPM)), **Physical Review D** **70**, **043514 (2004)**.
- [16] Probing Dark Energy with Supernovae : A concordant or a convergent model ? (J.-M Virey, A. Ealet (CPPM/LAM), C. Tao (CPPM), A. Tilquin (CPPM), D. Fouchez (CPPM), A. Bonissent (CPPM), P. Taxil (CPT), **Physical Review D** **70**, **121301 (2004)**.
- [17] On the determination of the deceleration parameter from supernovae data (J.-M Virey, P. Taxil (CPT), A. Tilquin (CPPM), A. Ealet (CPPM), C. Tao (CPPM), D. Fouchez (CPPM)), **Physical Review D** **72**, **061302 (2005)**.
- [18] Prospects for Dark Energy evolution : A frequentist multi-probe approach (C. Yèche (CEA-DAPNIA, Saclay), A. Ealet (CPPM), A. Réfrégier (CEA-DAPNIA, Saclay), C. Tao (CPPM), A. Tilquin (CPPM), J.-M. Virey, D. Yvon (CEA-DAPNIA, Saclay)), **Astronomy and Astrophysics** **448**, **831 (2006)**.
- [19] Sensitivity and figures of merit for dark energy supernova surveys (J.-M. Virey et A. Ealet (CPPM)), **Astronomy and Astrophysics** **464**, **837 (2007)**.
- [20] Probing for dynamics of dark energy and curvature of the universe with the latest cosmological observations (Gong-Bo Zhao (IHEP Pékin), Jun-Qing Xia (IHEP Pékin), Hong Li (Univ. Pékin), C. Tao (CPPM), J.-M. Virey, Zong-Hong Zhu (Univ. Normale Pékin), Xinmin Zhang (IHEP Pékin)), **Physics Letters B** **648**, **8 (2007)**.
- [21] Geometrical tests of cosmological models : I. Probing dark energy using the kinematics of high redshift galaxies (C. Marinoni (CPT), A. Saintonge (Cornell), O. LeFevre (LAM), A. Mazure (LAM), R. Giovanelli (Cornell), M.P. Haynes (Cornell), K.L. Masters (Harvard), J.-M. Virey), **Astronomy and Astrophysics** **478**, **43 (2008)**.
- [22] Geometrical tests of cosmological models : III. The Cosmology-Evolution Diagram at $z=1$ (C. Marinoni (CPT) et al.), **Astronomy and Astrophysics** **478**, **71 (2008)**.
- [23] Testing the gravitational instability paradigm at $z=1$ (C. Marinoni (CPT) et al.), **Astronomy and Astrophysics** **487**, **7 (2008)**.
- [24] On the determination of curvature and dynamical dark energy (J.-M. Virey, D. Talon-Esmieu (CPPM), A. Ealet (CPPM), P. Taxil (CPT) et A. Tilquin (CPPM)), **Journal of Cosmology and Astroparticle Physics** **0812**, **008 (2008)**.
- [25] A test of the CPL parameterization for rapid dark energy equation of state transitions (S. Linden (CPT) et J.-M. Virey), **Phys. Rev. D** **78**, **023526 (2008)**.
- [26] Cosmological Parameter Extraction and Biases from Type Ia Supernova Magnitude Evolution, (S. Linden, J.-M. Virey et A. Tilquin), **Astronomy and Astrophysics**, **506**, **1095 (2009)**.

• *Comptes rendus de conférences*

- [27] Search for quark compositeness with polarized beams at RHIC **XXXIème Rencontres de Moriond**, Les Arcs, France, Mars 1996. Session " '96 QCD and High Energy Hadronic Interactions", page 613 ; Editeurs J. Trân Thanh Vân.
- [28] Spin asymmetries from non standard physics with polarized protons beams at RHIC (Avec P. Taxil), 12th **International Symposium on High Energy Spin Physics**, Amsterdam, Pays-Bas, Septembre 1996, page 585 ; Editeurs C. de Jager et al.
- [29] Search for compositeness and leptophobic gauge bosons (with polarized beams) (Sur invitation) **Workshop on Physics beyond the Standard Model : "Beyond the Desert, Accelerator and Non-Accelerator Approaches"**, Castle Ringberg, Allemagne, Juin 1997, page 331 ; Editeurs H.V. Klapdor-Kleingrothaus et H. Päs.
- [30] Polarized beams at HERA : analyzing the chiral structure of contact interactions (Sur invitation) **Workshop "Physics with Polarized Protons at HERA"**, DESY-Allemagne et CERN-Suisse, Mars-Septembre 1997, page 152, Editeurs A. De Roeck et T. Gehrman.
- [31] Sensitivity to New Physics in Parity Violating Asymmetries at RHIC (Sur invitation) **Workshop "RHIC Spin Physics"**, RIKEN-BNL Research Center, New-York, USA, Avril 1998, page 293, Editeurs G. Bunce, Y. Makdisi et M.J. Tannenbaum.
- [32] Contact Interactions with polarized beams at HERA (Sur invitation) (Avec J. Kalinowski et H. Spiesberger) Report of the working group on "High E_T , exotics and rare processes". A paraître dans les proceedings du **"Third UK Phenomenology Workshop on HERA Physics"**, Durham, Angleterre, Septembre 1998, Editeurs W.J. Stirling, R. Devenish and M. Whalley.
- [33] New processes and Parity Violating spin asymmetries (Sur invitation) **Workshop "Event Generator for RHIC Spin Physics II"**, RIKEN-BNL Research Center, New-York, USA, Mars 1999, Editeurs N. Saito et A. Schäfer.
- [34] Search for Scalar Leptoquarks with polarized protons at HERA and future "ep" Machines (Sur invitation) (Avec P. Taxil et E. Tuğcu) **Workshop "Deep Inelastic Scattering 99"**, DESY-Zeuthen, Allemagne, Avril 1999, Editeurs J. Blümlein et al., Nucl.Phys.B Proc.Suppl. 79 (1999) 617.
- [35] Effects of Scalar Leptoquarks at HERA with polarized beams (Sur invitation) (Avec P. Taxil, E. Tuğcu et A. de Roeck) **Workshop "Polarized Protons at High Energies - Accelerator Challenges and Physics Opportunities"**, DESY-Hamburg, Mai 1999, Allemagne, Editeurs A. de Roeck et al.
- [36] Supersymmetry with R parity violation at the LHC : Discovery potential from single top production (Invitation de G. Polesello) (Avec P. Chiappetta, A. Deandrea, E. Nagy, S. Negroni et G. Polesello) **ESF Network Workshop and "Les Houches" Winter School, "Topological defects and the non-equilibrium dynamics of symmetry breaking phase transition"**, Les Houches, Février 1999, France.

- [37] Supersymmetry with R parity violation at the LHC : Discovery potential from single top production (Invitation de G. Polesello) (Avec P. Chiappetta, A. Deandrea, E. Nagy, S. Negroni et G. Polesello) **Workshop "Supersymmetry at TeV Colliders"**, Les Houches, Octobre 1999, France.
- [38] Parity Violation in Jet Production (Sur invitation) **Workshops "Predictions and Uncertainties for RHIC Spin Physics"** et **"Event Generator for RHIC Spin Physics III"**, RIKEN-BNL Research Center, New-York, USA, Mars 2000, Editeurs J. Qiu et W. Vogelsang.
- [39] Contact Interactions and Leptoquarks at eRHIC (Sur invitation) (Avec A. Deshpande, P. Taxil et E. Tuğcu) **"The 2nd eRHIC Workshop"**, Yale University, Yale, USA, Avril 2000, Editeurs A. Deshpande et al.
- [40] New Physics at RHIC (Sur invitation) **Workshop "RHIC Spin Physics in Year 1 and beyond"**, RIKEN-BNL Research Center, New-York, USA, May 2001, Editeurs L. Bland, N. Saito et W. Vogelsang.
- [41] New Physics at Polarized Hadronic Colliders (Sur invitation) (Avec P. Taxil) **"International workshop on the spin structure of the proton and polarized collider physics"**, Trento, Italie, Juillet 2001, Editeurs S. Bass et al., Nucl.Phys.B Proc.Suppl. 105 (2002) 150-155.
- [42] Testing Gravity on Large Scales. The Skewness of the Galaxy Distribution at $z \sim 1$, (C. Marinoni, J.-M. Virey et al.), Proceedings of 43 rd Rencontres de Moriond on Cosmology (La Thuile, 2008), (2008).
- [43] A Test of the CPL Parametrization for rapid dark energy transition, (S. Linden et J.-M. Virey), Proceedings of 43 rd Rencontres de Moriond on Cosmology (La Thuile, 2008), (2008).
- [44] Experimentation of a new pedagogical method in first year's teachings of physics, Frontiers of Fundamental Physics 14 - FFP14, (2014), Aix Marseille University.