

Chapter 1

Louis Michel complete Bibliography

1.1 Scientific papers

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- (130) 1996 D.A. SADOVSKII, B.I. ZHILINSKII, L. MICHEL. Collapse of Zeeman structure of hydrogen atom in external electric field. *Phys. Rev.* **A53** (1996) 4064–4067.
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- (132) 1996 Physical implications of crystal symmetry and time reversal, in *Symmetry and structural properties of condensed matter*. (Proc. 4th Intern. School Theor. Phys. Zajaczkowo, Poland 29 August - 4 September 1996), edit. T. Lulek, W. Florek, B. Lulek, World Scientific (1997) 15-40.
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- (135) 1997 Recent results on the implication of crystal symmetry and time reversal. Lecture given on August 1st 1997 at the VIIIth International Conference on Symmetry Methods in Physics, JINR, Dubna, Russia. *preprint IHES/P/98/09*.
- (136) 1999 L. MICHEL, J. ZAK Connectivity of energy bands in crystals. *Phys. Rev. B* **59** (1999) 5998–6001.
- (137) 1999 Symmetry and topology of Energy Bands in Crystals. *preprint IHES/P/99/07*, published in *Symmetry and structural properties of condensed matter*. (Proceedings of the 5th International School on Theoretical Physics), Zajaczkowo, Poland 27 August - 2 September 1998, edit. T. Lulek, B. Lulek, A. Wal, World Scientific (1999) 3-17, without appendix on “Non-symmorphic elements“.
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1.2 Papers of general or historical interest

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- (II) R 1979 Cosmologie (Articles de Souriau *et al.*). Bulletin Soc. Française de Physique, no 25 (1979) p.23.
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- (VI) G 1983 O Sobranii nauchnykh sochinenii A.D. Sakharova, p.6, in Russkaya Myslp1, n°3439, 18/11/1982.
- (VII) H 1983 L'Institut des Hautes Etudes Scientifiques Bulletin Soc. Française de Physique, no 43 (1983) p.23.
- (VIII) G 1983 Une nouvelle et abondante source d'énergie? in *La radioactivité artificielle a cinquante ans*, Editions de Physique et CNRS, Paris 1984, 45-54.
- (IX) H 1983 Charge conjugation: A contribution to the history of this internal quantum number of particle physics, in *Symmetry in Physics (1600–1980)* ed. M. Doncel *et al.*, Servei de Publicacions, Universitat Autònoma de Barcelona (1984) 389-408. IHES/P/83/67.
- (X) G 1983 Les symétries des lois de la physique. in *Doctor HONORIS CAUSA Louis Michel*, Discurs llegit a la cerimònia d'investidura celebrada a la sala d'actes d'aquest rectorat el dia 27 de setembre de l'any 1983, Bellaterra 1983, 5 - 18.
- (XI) H 1984 M.G. DONCEL, L. MICHEL, J.SIX, Interview de Eugene P. Wigner sur sa vie scientifique. Archives Internationales d'Histoire des Sciences, 34 (1984) 177-217 (n° 112).
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- (XIV) G 1984 La symétrie en Physique, La Vie des Sciences (Comptes Rendus Acad.Sci.) **2** (1985) 11-36.
- (XV) H 1985 Symmetry and Conservation Laws in Particle Physics in the Fifties.

- in *Pions to Quarks: particle physics in the 1950s: based on a Fermilab symposium*, ed. L.M. Brown, M. Dresden, L. Hoddeson, Cambridge University Press (1989) 373-383. IHES/P/85/48
- (XVI) H 1985 Evocation du centenaire de la naissance de Niels Bohr. *La vie des Sciences*, C.R. Acad.Sci. 2 (1985) 555-557.
- (XVII) H 1985 La vie et l'oeuvre de P.A.M. Dirac, *La vie des Sciences*, C.R. Acad.Sci. 2 (1985) 619-622.
- (XVIII) H 1986 L. MICHEL, P. RADVANYI, Le Centenaire de la naissance de Niels Bohr. *Bulletin Soc. Française de Physique*, n° 59 (1986) 12.
- (XIX) G 1986 Symmetry in Physics, in "*Symmetrie in Geistes- und Naturwissenschaft*", Springer Verlag, 1988, 127-136.
- (XX) H 1987 Louis de Broglie, 1892-1987. *Bulletin Soc. Française de Physique*, n° 65 (1987) 23-24.
- (XXI) H 1987 Louis de Broglie, *Physics Bulletin*, **38** (1987) 312.
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- (XXIII) R 1988 Berthelot, Duhem, deux livres récents de la collection: "Un savant, une époque". *Bulletin Soc. Française de Physique*, n° 68, (1988) 28-29.
- (XXIV) R 1988 Langevin, Science et vigilance; par Madame B. Bensaude-Vincent. *Bulletin Soc. Française de Physique*, n° 69, (1988) 16
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- (XXVIII) R 1990 "Symmetrien der Natur" Ein Handbuch zur Natur- und Wissenschaftsphilosophie, Klaus Mainzer; *Archives de Philosophie*.
- (XXIX) H 1990 Léon Motchane, *Gazette des mathématiciens*, n° 44, 9-10, avril 1990.
- (XXX) G 1990 De nouvelles sources d'énergie sont-elles possibles? *Revue du palais de la Découverte*. **19** n° 183 déc. (1990) 21-32.
- (XXXI) R 1991 Particules et lois de la Physique. Conférences à la mémoire de Paul Dirac., par R. Feynman, S. Weinberg. *Bulletin Soc. Française de Physique*,
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- (XXXIII) H 1992 Louis de Broglie: le savant. *La Vie des Sciences* **9** (1992) 335-340.
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- (XXXV) H 1993 Les années d'avant-guerre: Francis Perrin chercheur. in *Hommage à Francis Perrin*, Editions du CEA (1993) 21-33.

- (XXXVI) G 1994 Scientific Culture. Lecture given on October 20, 1992 at McConnell auditorium, Smith College, in *The Cultures of Science*, ed. M. Senechal, Nova Science Pub. N-Y. (1994) 5-18
- (XXXVII) G 1995 What is Scientific Culture? p. 81-82 in *Ethical and Spiritual Dimensions of Social Progress*, United Nations publications, E.95.IV.2 (1995)
- (XXXVIII) H 1996 Louis de Broglie, p. 187-8, in *Dictionnaire des intellectuels français*, edit. J. Julliard, M. Winock, Editions du Seuil, Paris, (1996) 187-188.
- (XXXIX) H 1996 Wigner memorial lecture. in *Group 21, Physical Applications and Mathematical Aspects of Geometry, Groups and Algebras*, vol. 1, editors H.-D. Doebner, P. Nattermann, W. Scherer, World Scientific (1997) 36-44. IHES/P/96/81.
- (XL) G 1997 Préface au cours de L'Ecole Polytechnique. in *Symétrie en Physique* de J.P. Blaizot et J.C. Toledano. Editions Ellipses, Paris, (1997) p. i-iii.
- (XLI) R 1997 Les réseaux parfaits des espaces euclidiens; de Jacques Martinet. (Masson 1996). *Gazette des Mathématiciens*, n° 74 (octobre 1997) 103-105.
- (XLII) G 1998 Ses travaux en physique nucléaire, in *Les écrits de Francis Perrin*, éditeurs P. Baton, M. Neveu, Editions du CEA, Paris (1998) 263-266.
- (XLIII) G 1998 Physique et Mathématique. in *Les relations entre les mathématiques et la physique théorique*. Festschrift for the 40th anniversary of the IHÉS. Publications Mathématiques de IHÉS. Special volume. Paris 1998, 131-144.
- (XLIV) H 1999 History of the IHÉS and its Foundation by Léon Motchane. *The Mathematical Intelligencer*, **21**, (1999) 28-31.
- (XLV) H 1999 Peierls

1.3 Lecture and seminar notes

- 1948 & 1951
Cours de l'Ecole d'Application des Poudres:
Applications de la Mécanique Quantique à la Chimie.
- 1954 - 1955
Princeton University:
en collaboration avec A.S. Wightman,
Dirac Theory and Quantum Field Theory.
- 1956
Collège de France,
Cours sur le meson μ .
- 31/1/1956
Séminaire de Physique Théorique et Nucléaire; E.N.S. :
Etude Covariante de la Polarisation des Particules; Application aux Particules de spin 1/2.
- 6 et 27 - 11 - 1956

Séminaire de Physique Théorique et Nucléaire; E.N.S. :
Notion de Parité pour les Particules Élémentaires.

- 1956 - 1957
Séminaire R. Deheuvels :
L.Michel: Université de Lille: Exposé 4 et 6;
Axiomatique et representations de la mécanique Quantique.
- 1957
Ecole d'Eté, Les Houches:
Cours sur la polarisation des Particules Élémentaires.
- 1958
Varenna Summer School
Lectures on group theory.
- 24-2-1959
Séminaires de Physique Théorique; E.N.S.: Precession of the Polarization of
Particles moving in a homogeneous Electromagnetic Field.
- 1959 - 1960
Université de Paris, Orsay;
Cours de Physique Nucléaire.
- 1961
Centre de Physique Théorique; Ecole Polytechnique;
Introduction à la mécanique quantique.
- 1961
Centre de Physique Théorique; Ecole Polytechnique;
Theoretical Study of Particle Polarization in High Energy Physics.
- 1962 - 1963
Université de Marseille;
Leçons sur les interactions Faibles. redaction de ELY et SOFFER.
- 1963
Université d'Ankara (Turquie)
Cours sur les Interactions faibles.
- 1964
IHES, Bures sur Yvette;
Cours sur les Interactions faibles.
- 1967
Centre de Physique Théorique, Ecole Polytechnique;
Matrices Densité de Polarisation.
- 1968-69
Physique Théorique Bordeaux, n° 35, 37, 41. Polarisation Density Matrix - How
to present its measurement.
- 1970
Ecole d'été de Physique des Particules, Gif-sur-Yvette;
Matrices Densité de Polarisation. (300 pages); en collaboration avec M.G. Don-

cel et P. Minnaett.

- 1972
3-rd Gift Seminar in Theoretical Physics “Broken Symmetries“ March 72.
P.49 to 131 “Geometrical aspects of symmetry breaking“.
- 1976
Ecole d’été de Montréal:
Brisure spontanée de symétrie.
- 1976
University of Michigan, Ann Arbor;
Physical Application of Group Theory.
- 1980
University of Wroclaw, Pologne;
Group Theoretical Methods.
La symétrie des Particules Elémentaires.
- 1982 - 1983
Cours de 3-e cycle à l’Ecole Normale Supérieure:
La théorie des Groupes et les Symétries en Physique.