

CURRICULUM VITAE:

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Born 29 March 1948 in Brig, Switzerland.

Father of Marilyn, born 17 March 1971, and Olivier, 29 October 1984.

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Higher education and degrees

1965-1967 Gymnase cantonal de Lausanne, Switzerland:

Baccalauréat Mathématiques-Sciences, 1967.

Maturité Fédérale type C, 1967.

1966-1967 Université Populaire de Lausanne, Switzerland:

Attestation d'examen en électronique, 1967.

1967-1972 Université de Lausanne, Switzerland:

Diploma of physicist, 1972.

1974-1975 Rutherford Laboratory, Oxford, England.

1975-1978 University of Chicago, USA, and

Swiss Federal Institute of Technology, Zurich:

Doctorat in natural sciences (PhD), 1978.

Medal of the Swiss Federal Institute of Technology, 1979.

1979-1981 University of Geneva, Switzerland,

Graduate Institute of International Studies:

Student at large of strategy and international relations.

Professional experience

1971-1974 Centre Européen de Recherches Nucléaires (CERN), Geneva:
research fellow.

1972-1973 SEN Electronics, Geneva, Switzerland:

hardware and software consultant.

1974-1975 Rutherford High Energy Physics Laboratory, Oxford, England:

graduate student.

1975-1977 University of Chicago, USA:

graduate student and research associate.

1978-1980 Centre Européen de Recherches Nucléaires (CERN), Geneva, and

Swiss Federal Institute of Technology, Zurich:

research associate.

1980-1982 Geneva International Peace Research Institute (GIPRI):

director.

- 1982 Stockholm International Peace Research Institute (SIPRI):
research associate.
- 1982-1987 Independent Scientific Research Institute (ISRI), Geneva:
director.
- 1983-1984 Orbisphere Laboratories, Geneva, Switzerland:
hardware and software system engineer
- 1984-1987 University of Geneva, Center for Energy Studies (CUEPE):
researcher and lecturer.
- 1988-1994 Independent Scientific Research Institute (ISRI), Mauritius:
director.
- 1993-1994 Mauritius Research Council, Mauritius:
personal scientific advisor to Sir Veerasamy Ringadoo,
first President of the Republic of Mauritius.
- 1994 North Carolina State University, USA:
visiting scientist.
- 1995-2000 Independent Scientific Research Institute (ISRI), Geneva:
director.
- 1999-2000 Webster University, Geneva:
lecturer of computer science.
- 2001-2005 Independent Scientific Research Institute (ISRI), Inden:
director.
- 2006 — Independent Scientific Research Institute (ISRI), Oxford:
director.

Research and professional skills

Electronics and computer science;
Experimental particle physics;
High-energy-density and plasma physics;
Nuclear armaments and disarmament;
Theoretical and mathematical physics.

PUBLICATIONS (Alone or in collaboration)

Nota bene 1: Apart from a few exceptions, the following publication list contains only the published papers and books, and the papers directly available at the given internet addresses, of which A.A. Gsponer is the only author or a major contributor.

Nota bene 2: To save space, the names of the co-authors and co-editors are not mentioned.

Nota bene 3: Numerous unpublished reports and papers are not listed.

ELECTRONICS

Cours d'Electronique Générale (Université Populaire, Lausanne, 1966, 1967) ca. 300 pp.

Conception et applications des encodeurs logarithmiques, Nucl. Instr. and Methods **96** (1971) 21–27.

How to use the Orbisphere 29014 test unit (Orbisphere Laboratories, Vézenaz-Geneva, June 8, 1984) 16pp.

Orbisphere oxygen measurement systems: Technical manual (Orbisphere Laboratories, Vézenaz-Geneva, August 1, 1984) 61 pp.

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EXPERIMENTAL PARTICLE PHYSICS

Mesure de la polarisation des positrons par la méthode du positronium, Travail de diplôme (Université de Lausanne, 1972) 56 pp.

Non-zero spin effects in inclusive pion-proton reactions, Proc. of the XVII Int. Conf. on High Energy Physics, London (1974) 471.

Spin effects in the inclusive reactions $\pi + p$ at 8 GeV/c, Phys. Lett. **57B** (1975) 93–96.

A measurement of the polarisation parameter in large angle proton-proton scattering at 7.9 GeV/c, Nucl. Phys. **B125** (1977) 349–368.

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Spin dependence of inclusive reactions from proton-proton collisions at 7.9 GeV/c, Nucl. Phys. **B142** (1978) 2220–228.

K_L total cross-section and K_S coherent regeneration on nuclei between 30 and 130 GeV/c, ETH diss. Nr. 6224 (Zurich, June 1978) 90 pp.

K_L regeneration of electrons from 30 to 100 GeV/c: A measurement of the K_0 charge radius, Phys. Rev. Lett. **41** (1978) 1213–1216.

Coherent K_S regeneration amplitude for C, Al, Cu, Sn and Pb nuclei from 20 to 140 GeV/c and their interpretation, Phys. Rev. Lett. **42** (1979) 9–13.

K_L -nucleus total cross-sections between 30 and 150 GeV/c: Quantitative evidence for inelastic screening, Phys. Rev. Lett. **42** (1979) 13–16.

Coherent K_S regeneration on protons from 30 to 130 GeV/c, Phys. Rev. Lett. **42** (1979) 350–353.

A-dependence of muon pair production in π -nucleus interactions at 280 GeV/c,

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NUCLEAR AND PLASMA PHYSICS

Particle beam weapons: A need for re-assessment, Report GIPRI-80-04 (August 1980), 6 pp.

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Scanned version, *Physics of high-intensity high-energy Particle Beam Propagation in open Air and outer-space Plasmas*, Report ISRI-82-04.22 (September 2004) 97 pp.

Final expanded version (January 2009) 254 pp.

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Un examen de l'impact radiologique du LEP sur l'environnement, Enquête préalable à la Déclaration d'Utilité Publique (Mairie de Versonnex, France, 30 octobre 1982) 13 pp.

Radiation dose distributions close to the shower axis calculated for high energy electron initiated electromagnetic showers in air, Atomkernenergie–Kerntechnik **43** (1983) 42–46.

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The physics of antimatter induced fusion and thermonuclear explosions, in Proceedings of the 4th International Conference on Emerging Nuclear Energy Systems, Madrid, June 30/July 4, 1986 (World Scientific, Singapore, 1987) 166–169.

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NUCLEAR ENERGY AND ENERGY CONSERVATION

Conservation de l'énergie: Recherches et réalisations techniques dans l'habitat et

l'équipement ménager, Publ. du CUEPE No. 5 (Université de Genève, 1981) 170 pp.

Energy Conservation: Research and technical realisations in housing and household appliances, Publ. du CUEPE No. 6 (Université de Genève, 1981) 102 pp.

Les accélérateurs remplaceront-ils les surrégénérateurs?, *La Recherche* **124** (1981) 866–868;

Translated in Spanish as *Remplazaran los aceleradores a los reproductores?*, *Mundo Científico* **7** (1981) 766–768.

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NUCLEAR WEAPONS NON-PROLIFERATION

Particle accelerators and fusion technologies: Implications on horizontal and vertical proliferation of nuclear weapons, Report GIPRI-80-02 (July 1980) 23 pp.

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Reprinted **in** Informationsbulletin PSR - Schweiz **4** (1984) 21–22;

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Seventh edition (September 2000) 230 pp.

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Inertial Confinement Fusion and Fourth Generation Nuclear Weapons. Summary of an invited contribution at the 62nd Meeting of the German Physical Society (DPG), Regensburg, 25–27 March 1998. (DPG-FONAS, Hamburg, 1998, ISBN 3-933981-01-08) 133-152.

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ITER: The International Thermonuclear Experimental Reactor and the Nuclear Weapons Proliferation Implications of Thermonuclear-Fusion Energy Systems. Report ISRI-04-01 (February 2004) 82 pp.

Available at <http://arxiv/abs/physics/0401110>

Fourth Generation Nuclear Weapons: Military effectiveness and collateral effects. Report ISRI-05-03 (October 2005) 50 pp.

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The origin of Iraq’s nuclear weapons program: Technical reality and Western hypocrisy, Report ISRI-05-09 (December 2005) 165 pp.

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DISARMAMENT AND SOCIOLOGY OF SCIENCES

Le droit au refus de tuer (Bureau International de la Paix, International Peace Bureau, Geneva, 1980, 1981) 52 pp.

The bomber radar cannot see: not so invisible, *New Scientist* (1 April 1982) 45.

Wissenschaft und Krieg (Verein der Mathematiker und Physiker an der ETH, VMP-VSETH, ETH Zurich, 1983) 93 pp.

Wissenschaft, Technologie und Wettrüsten, in *Wissenschaft und Krieg* (VMP-VSETH, ETH Zurich, 1983) 7–32.

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Rüstungskonversion: Der schwierige Übergang von der militärischen zur zivilen Forschung und Entwicklung, *Widerspruch* 7 (1984) 65–74.

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cv.14 March 2009

Remarks:

The ISRI number and first arXiv date have priority when the publication is much later.

The principle is: list according to the first publication, i.e., arXiv before printed version.