

## CURRICULUM VITAE



### VIGNAUD Daniel

**Born :** December 27, 1944

**Nationality :** French

**Present address :**

Astroparticule et Cosmologie APC

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**Current position:**

Scientific associate @ APC

**Previous positions:**

DAPNIA, Saclay : 1973-1999

Visiting scientist at LNGS and University of Roma 2 : 1989-1990

PCC Collège de France: 1999-2004

**Education and degrees:**

1969: Thèse de 3ème cycle on pp collisions, University of Paris XI

1976: Thèse de doctorat d'état on KN collisions, University of Paris XI

**Research activities :**

1966-1976 : Hadron collisions in bubble chamber experiments

1976-1988: Neutrino interactions in BEBC bubble chamber experiments

1985-1998: Solar neutrino experiment GALLEX

1996-1999: High energy neutrino experiment ANTARES

2000-...: Solar neutrino experiment Borexino

2003-2008: Double Chooz reactor neutrino experiment

**Research management responsibilities:**

1992-1999: Deputy director of DAPNIA/SPP (Service de physique des particules), Saclay

1999-2004: Director of the PCC (Physique Corpusculaire et Cosmologie) Laboratory, Collège de France

2005-2007: Deputy director of the APC (Astroparticule et Cosmologie) Laboratory, Paris

**Publications :**

120 in journal with referees

Some of them:

1. J. Bouchez et al., *Matter effects for neutrino oscillations*, Z. Phys. C32 (1986) 499
2. M. Cribier et al., *MSW regeneration of solar  $\nu_e$  in the Earth*, Phys. Lett. B182 (1986) 89
3. M. Spiro and D. Vignaud, *Solar model independent neutrino oscillation signals in the forthcoming solar neutrino experiments*, Phys. Lett. B242 (1990) 279
4. P. Anselmann et al., *Solar neutrinos observed by GALLEX at Gran Sasso*, Phys. Lett. B285 (1992) 376

5. S. Turck-Chièze et al., *The solar interior*, Physics Reports 230 (1993) 57
6. P. Anselmann et al., *First results from the  $^{51}\text{Cr}$  neutrino source experiment in GALLEX*, Phys. Lett. B342 (1995) 440
7. W. Hampel et al., *GALLEX Solar Neutrino Observations : Results for GALLEX IV*, Phys. Lett. B447 (1999) 127
8. P. Amram et al., *Background Light in Potential Sites for the ANTARES Undersea Neutrino Telescope*, Astroparticle Physics 13 (2000) 127
9. C. Arpesella et al., *Measurements of extremely low radioactivity levels in Borexino*, Astroparticle Physics 18 (2002) 1
10. C. Arpesella et al., *Direct measurements of the  $^7\text{Be}$  solar neutrino flux with 192 days of Borexino data*, Phys. Rev. Lett. 101 (2008) 091302
11. G. Bellini et al., *Observation of Geo-neutrinos*, Phys. Lett. B687 (2010) 299
12. G. Bellini et al., *Neutrinos from the primary proton-proton fusion process in the Sun*, Nature 512 (2014) 383

### **Book**

“La lumière des neutrinos”, Editions du Seuil, 1995 (with M. Cribier and M. Spiro)

### **Lectures at Schools**

“Solar and supernovae neutrinos” at the School on Non Accelerator Particle Astrophysics, Trieste (Italy), 1995, 1998, 2001

“Neutrino physics and astrophysics”, New Worlds in Astroparticle Physics, Faro (Portugal), 1996

“Comment la masse vint aux neutrinos”, Ecole Joliot-Curie, Lalonde les Maures (France), 2003

### **Conferences (organization)**

May 1989, « Inside the Sun », Versailles (co-initiator)

September 1999, “TAUP99”, Paris (scientific secretary)

June 2004, “Neutrino 2004”, Paris (co-chair)

June 2007, ISAPP School “Multi-messenger approach in high-energy astrophysics”, Seillac (co-chair)

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