



Jacques PAUL

Scientific Adviser – French Atomic Commission (jpaul@cea.fr)

Education

M.S. (Astrophysics), Paris-7 University, 1968

Ph.D. (Astrophysics), Paris-7 University, 1979

Professional Career

Mainly devoted to the development of space gamma-ray astronomy: from 1970 to 1981, French co-Investigator of the European Space Agency COS-B mission for gamma-ray astronomy, from 1982 to 1998, Co-Principal Investigator of the French SIGMA telescope aboard the Russian satellite GRANAT, from 1994 to 2010, Mission Scientist of the European Space Agency INTEGRAL mission for low-energy gamma-ray astronomy, and since 2005, French Principal Investigator of the Sino-French mission SVOM for gamma-ray bursts studies.

Research Area

Research in astrophysics concerning (i) the relationship between gas, magnetic fields and cosmic rays in the Galaxy and the spiral structure of the Galactic Disk (ii) the gamma-ray production by the inverse Compton and the Bremsstrahlung processes in the interstellar medium (iii) the structure of the local interstellar medium as traced by gamma rays (iv) the contribution of the spiral and Seyfert galaxies to the gamma-ray background (v) the cosmic-ray acceleration by stellar winds (vi) the violent interstellar medium associated with the Carina Nebula (vii) the stellar origin of the ^{22}Ne excess in cosmic rays (viii) the identification of the high-energy gamma-ray source Geminga (ix) the nature of the hard source identified by SIGMA in the vicinity of the Galactic Center (x) the extreme sources in the Universe. More than 400 scientific papers (140 in referee journals).

Bibliography

Astronomie gamma spatiale, (with P. Laurent), Gordon and Breach Science Publishers, 1998

L'homme qui courait après son étoile, Odile Jacob, 1998

Spin, roman noir de la matière (with M. Cassé), Odile Jacob, 2006

Explosions cosmiques, Ellipses, 2007

Le roman des rayons cosmiques (with J.-L. Robert-Esil), Ellipses, 2009

Oh, l'Univers (with J.-L. Robert-Esil), Dunod, 2009

Passeport pour les deux infinis (collective book), Dunod, 2010

Le beau livre de l'Univers (with J.-L. Robert-Esil), Dunod, 2011

Distinctions

French Space Agency Bronze Medal, 1980

Ordre National du Mérite, Chevalier, 1992

French Atomic Commission Scientific Award, 1994

French Atomic Commission Media Award, 1998

Royal Society and Committee for Space Research Massey Award, 2002

French High-Education and Research Department Award 2009