

Dr. David A. Smith, directeur de recherche (Senior Scientist), CENBG/IN2P3/CNRS

David A. Smith is the group leader for NASA's *Fermi* satellite at the Centre d'Etudes Nucléaires de Bordeaux-Gradignan (CENBG), spokesman for *Fermi* for the French National Institute for Particle Physics and Nuclear Physics (IN2P3) of the National Center for Scientific Research (CNRS), and is the co-lead of the "Galactic Sources" Science Working Group within the international Large Area Telescope (LAT) collaboration. His primary research interest is the study of gamma-ray pulsars. *Fermi* was known as GLAST before being launched from Cape Canaveral in June, 2008. The LAT is the primary instrument on *Fermi*.

He grew up in Berkeley, California (except for 1960 in Geneva and 1971 in Strasbourg). After earning a B.A. in Physics from the University of California at Berkeley in 1981, he moved to Urbana-Champaign and obtained an M.S. from the University of Illinois, again in Physics. He was awarded a Chateaubriand Fellowship by the French Ministry for Foreign Affairs, which allowed him to work at the Laboratoire de Physique Nucléaire des Hautes Energies at the Ecole Polytechnique, near Paris, for the year 1982-1983. He then returned to Urbana, and received his PhD in 1988, for work on the CDF experiment at the Fermilab proton-antiproton collider that lead to the discovery of the Top quark. He was part of a small team that built and commissioned the then-largest muon detector in the world, specializing in the front-end and trigger electronics.

He was a postdoctoral fellow at the National Institute for Nuclear Physics (INFN) in Pisa, Italy for six years. David Smith switched to gamma ray astrophysics in 1991, developing innovative telescopes to exploit atmospheric Cherenkov light. He worked on experiments on the island of La Palma in the Canaries, and lead the reconversion of a solar facility in the French Pyrenees into a gamma-ray telescope after the originator of the project passed away, focussing on the data acquisition electronics. He has been a permanent IN2P3 staff member in Bordeaux since 1995.

The launch of *Fermi* and commissioning of the LAT have been very successful. The Bordeaux group shares the lead in the discovery of a large number of gamma-ray pulsars, published in *Science* and the *Astrophysical Journal*. Smith works with an international consortium to time pulsar rotations using radio telescopes around the world, as well as X-ray satellites. Smith also lead the testing of *Fermi*'s GPS-based precision clocks.

The aim of David Smith's investigations is to see whether the energy of a spinning neutron star is the power source underlying the acceleration of high energy cosmic rays in pulsar wind nebulae.

For additional information on Smith's activities and those of the French GLAST groups, visit
<http://glast.in2p3.fr>