From the Geosphere to the Cosmos: ASPERA Workshop

CV

Geo-neutrino Physics and Nuclear Activities Monitoring

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Since 1997: Permanent position at the Nuclear Physics department of CEA Saclay.

1997-2005 : Study of the quark structure of the nucleon and test of the Standard Model of electroweak interactions at low energy, using high precision measurement of parity violation in the scattering of few GeV electrons off hydrogen and helium targets. HAPPEx experiments at Jefferson Laboratory (Virginia) and E158 experiment at SLAC (California).

2005-2010: Detection of reactor antineutrinos. Search for a non-vanishing value of the θ_{13} neutrino mixing angle in the Double Chooz experiment (Ardennes, France). Development of the small ($1m^3$ target size) neutrino detector Nucifer for surveillance of nuclear reactor in the context of the non-proliferation of nuclear weapons.

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