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## **Hunting Down Solar Neutrinos; an Extraordinary South African Particle Physics Safari.**

*Tuesday, 25 February 2020 08:30 (30 minutes)*

The detection of the neutrino and subsequently the solar neutrino had stood for over 25 years as a major challenge for nuclear physicists. The presentation is a narrative of the ground-breaking experiment of the joint South African and American teams of JPF Sellschop and F. Reines for the search of cosmic ray neutrino in the early sixties. The Case Western-Wits team operated a gigantic for its time liquid scintillator detector at an unbelievable depth of almost 3,5 Km underground in the East Rand Proprietary Gold Mine (EPRM) in Johannesburg. After six years of preparations and operation the first evidence of high-energy cosmic ray neutrino interactions was published in 1965 in Physical Review Letters. This achievement was the determining factor for the career of JPF Sellschop and in certain respects for the development of Nuclear Physics in South Africa.

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