

Goodbye Francis & Thank You

Eddy Lelièvre-Berna, April 23, 2023

Dear colleagues,

I am very sad to announce the death of our friend and former colleague Francis Tasset on the evening of April 20, 2023.

Francis started playing with polarised neutrons in 1966 on the diffractometer DN2 of the CEA-Grenoble. After convincing Prof. Maier-Leibnitz to build a polarised neutron three-axis spectrometer at ILL, he met P.J. Brown and J.B. Forsyth who had proposed in 1964 to polarise a beam more efficiently with a Heusler crystal. It was the beginning of a long collaboration.



In 1975, he moved to the United States with his wife and three children for a one-year post-doc. He met W.C. Koehler and worked on superconducting materials. Based on this experience, he got the idea of exploiting the Meissner effect and built a prototype Cryoflipper at ILL. The positive results confirm him in the idea of building a prototype of Cryopad with the help and complicity of S. Pujol. It was the most ambitious project aiming at exploiting the full vector character of the polarisation.

After solving many problems, the Cryopad will be operational just before the long shutdown in 1990. The technique of Spherical Neutron Polarimetry was born. At the same time, seeking to maximise the flux of polarised neutrons, he carried out with T. Chupp on D3 the first test of a neutron spin filter which allowed him to evaluate the difficulties to be mastered.

A few years later, thanks to a steadfast motivation, Francis built a second-generation Cryopad at ILL and a first polarised helium-3 filling station at Mainz University. In 1998, the Spherical Neutron Polarimetry was adopted and people started speaking about ^3He spin filters around the world. In 2000, he launched the construction of the Tyrex filling station which will become the world reference before Francis' retirement in 2007.

Francis was a perfectionist in the quest for the same excellence in technical, engineering and most importantly scientific achievement. Passionate, obstinate and hard worker, he had to fight to complete projects and pioneered European projects at the ILL.

With many of us, he has always been unfailingly kind and willing to share his own knowledge. We have been very fortunate to have worked with him and it is with great sorrow that we say goodbye to a friend who we will greatly miss.

His funeral will take place on Tuesday 25 April at 16:00 at the La Tronche Funeral Center. Our thoughts are with Marie-Eglé, his wife, Cécile, Anne and Rémy, his children, and the family.