crystallographers

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Wolfram Prandl (1935-2001)

Certain personalities stand out prominently among the scientific community. Professor Dr **Wolfram Prandl** was one. He died unexpectedly during a walking vacation in the Pyrenees on 21 September 2001. Professor Prandl was a broadly educated intellectual whose knowledge of physics and crystallography was deep. He was also intensely interested in philosophy, history and literature, and loved theatre, music and the arts. It was always a pleasure to spend an evening with him in intellectually stimulating discussion.

Professor Prandl was born 19 May 1935, close to Regensburg, Germany. He studied physics in Göttingen and Munich and joined the mineralogy and crystallography department at Munich University as a physicist, where he did his doctoral thesis and later his habilitation under Professor Menzer and Professor Jagodzinski. The first German research reactor had just started to operate in Garching, near Munich, and was attracting young talent. Prandl led a neutron diffraction group and worked on an exciting topic of the time, namely magnetic structure determination. The systems that he studied were garnets, of great complexity. He immediately realised that progress could be achieved only by employing symmetry arguments. He developed a method that was generally applicable to the classification of magnetic structures and determined them from neutron diffraction data. Between achieving the habilitation and his doctorate, he spent a two-year sabbatical leave with Professor J. W. Stout at the University of Chicago, taking his young family there with him.

He become full professor of crystallography at the University of Tübingen in 1976, succeeding Professor Dachs. As a physicist in a crystallography institute, he tackled physical problems beyond structure determination, addressing the development of modern scattering methods at neutron and synchrotron X-ray sources, as well as high level numerical data treatment. Novel diffractometers were designed at his institute in Tübingen and installed at the research reactor in Karlsruhe and later in Berlin, as well as at a synchrotron beamline used for powder diffraction in Hamburg.

As a crystallographer, symmetry arguments and group theoretical methods were in his blood. He had an extraordinary gift for solving complex and abstract problems, often taking up the challenge of developing new models when other groups stopped in the face of increasing complexity. Prandl founded his own school with a unique combination of knowledge and ability, addressing a broad range of solid-state problems, such as the investigation of structural phase transitions, lattice dynamics, the study of magnetic correlation and excitation in low-dimensional or disordered systems, including spin glasses, superstructures in high T_c materials, and orientational disorder in molecular crystals. Despite this range of problems and systems, one feature was common to the entire output of the institute, namely the further development of neutron and X-ray scattering methodology and the interpretation of all experimental data in terms of fundamental microscopic quantities by thorough theoretical analysis.

Professor Prandl's competence made him a valued member of the scientific councils at the major research facilities in Grenoble, Jülich, Hamburg and Berlin, as well as in the BMFT Condensed Matter and Atomic Physics referee committee of the German Research Ministry, the KFN German Committee for Neutron Research, the IUCr Neutron Diffraction Commission, the German National Committee of Crystallography, and a referee group for the European Spallation Source.

He commanded respect, even as he spoke softly, for his knowledge was authoritative. He would weigh arguments put forth with care and arrive at sound judgements. While he was typically quiet and thoughtful at scientific and commission meetings, his comments at times proved essential before the best direction to proceed could be found. His arguments often remained undisputed, becoming the final word on the topic. If he found the discussion was going in a hopeless direction, he would record his impressions as a surreal sketch in his notebook.

He remained creative and open to new ideas throughout his life. His students found him always willing to answer questions and give advice. Politeness was an expression of a civilized lifestyle for him; he never raised his voice, even in heated discussion, never sought to overrule, only to convince, and he would never say a bad word about a colleague. He worked with such concentration that it seemed easy for him to meet deadlines and produce manuscripts without mistakes.

We have lost not only a valued colleague in Wolfram Prandl, but also a role model and a friend. Our deepest sympathies are with his family. We will always honour his memory.

Jörg Ihringer

Thomas Brückel