



北京大学量子材料科学中心

International Center for Quantum Materials, PKU

ICQM Seminar

Magnetoelectric Coupling in Frustrated Systems

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Time: 4:00pm, Nov. 27, 2012 (Tuesday)

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4:00

*Venue: Conference Room 607, Science Building 5
607*

Abstract

Multiferroics are based on simultaneous magnetic and polar order and have been intensely studied in the transition metal oxides. They allow coupling of magnetic order with electric fields. Several mechanisms have been established that support these usually mutually excluding coexisting orders. I will discuss various systems in which the coupling originates from frustration. The frustration is often caused by the spin systems, but can also originate from the lattice.

About the Speaker

Thomas Palstra holds a chair in Solid State Chemistry and has a leading research group in electric conduction, magnetism, superconductivity and ferroelectrics. His present scientific interests include crystal structure-property relationships of transition metal oxides, organic conductors and organic-inorganic hybrid materials. He has coauthored 190 manuscripts which were cited 13500 times, resulting in a Hirsch-index of 57. He was elected in 2010 member of the Royal Netherlands Academy of Arts and Sciences, KNAW.

Prof. Palstra graduated in 1986 at the Kamerlingh Onnes Laboratory of the University of Leiden on magnetism, superconductivity and their interplay. He continued as post-doc researcher at AT&T Bell Laboratories investigating flux motion in the then just discovered high-Tc superconductors. He became at Bell Laboratories Member Technical Staff, researching C60 superconductivity and colossal magnetoresistance materials. In 1996 he was appointed full professor at the University of Groningen continuing his research on transition metal oxides and organic conductors. His focus was on orbital order, metal-insulator transitions, multiferroic materials, pentacene, and more recently organic-inorganic hybrid structures. He has fulfilled a number of management responsibilities including vice-dean and dean of the Faculty of Mathematics and Physical Sciences (2008-2009), and is presently director of the Zernike Institute for Advanced Materials. During his tenure as director, the Zernike Institute increased its ranking worldwide from no.9 to no.4 in Materials Research Institutes according to the Times Higher Education index. This is the highest ranked institute in Europe.