Max Planck Lecture

Max Planck Institute for Solid State Research

Thursday, May 18, 2017
Werner Köster Lecture Hall 2R4, 2 p.m.

Superconductors Old and New

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Solid State Physics is a field which continuously renews itself through the discovery of new materials and new phenomena. This has been particularly true for the subfield of superconductivity. We will review the progress in this field from Kammelingh Onnes's discovery of superconductivity in mercury in 1911 to the Bednorz-Mueller ground breaking discovery of high temperature superconductivity in the lamellar copper oxides in 1986 to recent work on the Fe arsenides and selenides. Research on superconductivity has produced theoretical insights which have implications not only for superconductivity itself but for systems as varied as liquid crystal gels to the fundamental constituents of the universe.