Tel Aviv University , Colloquium Professor Pablo Esquinazi University of Leipzig, Germany

Melamed Hall 006 Defect-Induced Magnetism in Solids

In the last years the number of nominally non-magnetic solids showing magnetic order induced by some kind of defects has increased continuously. From the single element material graphite to several covalently bonded non-magnetic compounds, the influence of defects like vacancies and/or non-magnetic ad-atoms on triggering magnetic order has attracted the interest of experimentalists and theoreticians. We review and discuss the main theoretical approach as well as recently obtained experimental evidence based on different experimental methods that supports the existence of defect-induced magnetism (DIM) in non-magnetic as well as in magnetic materials.