

Speaker: Dr. Masayuki Ohzeki

Institution: Tokyo Institute of Technology

Title: Verification of the Conjecture for the Multicritical Points on the Several Mutually Dual Hierarchical Lattices

Date: 23/03/2007

**Abstract:**

A useful technique to conjecture the exact location of the multicritical point of spin glasses has been developed. Since the proposal of the conjecture, many results by the conjecture have been given and compared with the results by other approaches. Most of these verifications have shown that the conjecture would indeed be valid. However, as shown by Hinczewski and Berker, there are a few examples in which the conjecture may be slightly violated. My talk consists of the introduction of the conjecture on the location of the multicritical points, the successful verifications of the conjecture and our new results using Nobre's method to implement RG on hierarchical lattices: the random-bond Ising model with the Gaussian distribution on the self-dual hierarchical lattice and three mutually dual pairs of the hierarchical lattices.