

Lectures on Pure and Applied Physics

Research Topics in the Mathematical Sciences



Announcing

A Seminar Presentation
on May 14, 2013 at 10:30 am
in M 200B

at The University of New Haven

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University of New Haven

Title: Quasi-particles in 1D Ising Mode

Abstract:

Ising spin $s = 1/2, 1, 3/2$ chains with nearest and next-nearest neighbor coupling are interpreted as systems of floating particles. The particles are classified into species according to structure and into categories according to function. Species are distinguished by motifs consisting of several consecutive spins that interlink by sharing one or two sites. All particles are free of binding energies but subject to a generalized Pauli principle. Applications to jamming of granular matter in narrow channels and to DNA overstretching are in the works.

Further Information

For further information, please contact the Department of Mathematics.