

abstract

SPECIAL MATHEMATICAL PHYSICS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Loop calculus is a new theoretical tool which allows to express partition function of a statistical inference/physics problem on a graph in terms of a series. Each term of the series is associated with a loop on the graph. Utility of the loop calculus for analysis of modern error-correction codes, and also for improving their decoding, is demonstrated. This talk is based on cond-mat/0603189 and cs.IT/0609154.