- Lewis Carroll, 'Through the Looking-glass.'

## The Trivial Notions Seminar Proudly Announces

## ASM, DPP, 6V DWBC and what all these letters mean

## A talk by Konstantin Matveev

## Abstract

This talk will contain not only a quote by Lewis Carroll, but also a piece of mathematics by him - a way of computing determinants devised one hundred and fifty years ago. A generalization of this procedure will lead us to more modern topics, such as combinatorics of alternating sign matrices, descending plane partitions and the six-vertex model with domain wall boundary conditions from two dimensional statistical physics. Algebraic structure behind these models makes them integrable in a sense that one can explicitly compute certain weighted sums over their configurations (and hopefully we will not lose count).

Friday April 24<sup>th</sup>, at 1:00 pm Science Center 222

<sup>&</sup>quot;Manners are not taught in lessons," said Alice. "Lessons teach you to do sums, and things of that sort."

<sup>&</sup>quot;And you do Addition?" the White Queen asked. "What's one and one and one and one and one and one and one?"

<sup>&</sup>quot;I don't know," said Alice. "I lost count."