Einladung

zum

Seminar des Instituts für Quantenphysik

Prof. Dr. A. Ravi P. Rau
Department of Physics & Astronomy, Louisiana State University, Baton Rouge, USA

Fifteen schoolgirls spread (5X3) across a week, a pair of qubits, and a rainbow of four basic colours: Common Patterns

Donnerstag, den 11.07.2019
15:00 Uhr
M24/H10

Abstract: A recreational puzzle posed 175 years ago of 15 schoolgirls to walk three abreast to school for seven days of the week so that no girl sees a friend repeated in her row has links to many areas of mathematics: combinatorics, finite projective geometries, design and coding theory, etc. A link can also be made to states and operators of two qubits in today's quantum information, those Lie algebras and groups also providing a systematic way to get the required arrangements of the girls. These patterns, that can be further linked to four-colour vision and analogs in acoustics and sound, will be discussed. They may be useful for manipulating states and operators of a pair of qubits, with generalization also to multiple qubits.