



*Knowledge is nothing if not shared*

# SIAM SC seminar

once a month on **Wednesday at 12:20**  
in the seminar room MUUK (3rd floor)

**What is it?** The seminar is suitable not just for graduate students but for everyone interested in regular meetings over problems in mathematics. Meet your colleagues once a month and find out what is new in the field.

**Why to come?** We are bringing a wide variety of topics while the talks are designed to be easy to understand by non-experts. The goal is to convey a basic orientation in various areas of mathematics.

Upcoming seminar: **October 23 2019**

## **How to Recognize Different Types of Knots from Quite a Long Way Away**

*Lada Peksová*

Although various loops and knots have been around us for thousands of years, mathematicians were not interested in them until the late 18th century. Motivated by Kelvin's idea that each atom corresponds to a certain type of knot, the Scottish mathematician Tait decided to classify all possible knots. And he encountered a problem: how can one tell if a given knot can be unknotted or transformed to another by just twisting or pulling the strings? There is still no complete answer to this simple question.

It was not until the 20th century that tools were found to answer this question for at least some specific knots. The main tools are functions that assign to every knot an element from some set such that if we only twist the knot, the value of this function remains the same - in other words we have determined the invariant of the knot. I will show several different knot invariants - tricolorability, linking number, Jones polynomial and more.

You can also look forward to a discussion with SIAM SC members.  
Nonalcoholic drinks and pizza included!

