

Workshop in celebration of Prof. Marc Troyanov, Tuesday February 11, 2025, EPFL - Room ELA1

14:00 – 14:45 Maryna Viazovska (EPFL):

**A glimpse at the geometry of numbers.**

15:00 – 15:45 PM Pierre Pansu (Université Paris-Saclay):

**Conformal geometry, conformal cohomology, after M. Troyanov.**

Conformal projections have been present in cartography for centuries, although they distort distances and areas a lot. Unexpectedly, this distortion is linked to electrostatic capacities. We shall explain the cohomological framework designed by Marc Troyanov for capacities, and illustrate it with examples.

16:00 – 16:45 PM Kirsi Peltonen (Aalto University, Helsinki):

**Crafting Mathematics Across the Disciplines.**

We will discuss about our over decade long journey to develop communication between mathematics, arts, design and architecture at Aalto University, Finland. As a concrete opening in education, we have launched a Math&Arts Minor that is open to all university students. This has unfolded new viewpoints relevant to mathematics and other academic disciplines as well. Several fields of mathematics suggest novel and imaginative ways of thinking about space, shapes and transformations that have not yet been fully linked into meaningful concepts in other areas. Many surprising and provocative notions and phenomena have come especially under the categories of low-dimensional topology and geometry. During the talk, we will describe also some related ongoing interdisciplinary research activities and industrial collaboration.