## Bern - Fribourg/Freiburg Neuchâtel

| Time | Speaker |
| :--- | :--- |
| 14:00 | Alessio Caminata (Université <br> de Neuchâtel) |
| $15: 30$ | Filip Misev (Max-Planck-Institut <br> für Mathematik) |

15:30 Filip Misev (Max-Planck-Institut für Mathematik)

Talk

## A Pascal's Theorem for rational normal curves

Abstract: Pascal's Theorem gives a synthetic geometric condition for six points $\mathrm{A}, \ldots, \mathrm{F}$ in the projective plane to lie on a conic. Namely, that the intersection points of the lines AB and DE, AF and CD, EF and BC are aligned. One could ask an analogous question in higher dimension: Is there a linear coordinate-free condition for $\mathrm{d}+4$ points in the d -dimensional projective space to lie on a degree d rational normal curve? In this talk we will discuss and give an answer to this problem by writing in the GrassmannCayley algebra the defining equations of the parameter space of $\mathrm{d}+4$ ordered points that lie on a rational normal curve of degree d . This is a joint work with Luca Schaffler.

## Positive fibred knots and the unknotting number

Abstract: The unknotting number measures how difficult it is to untie a given knot. This classical knot invariant is not very hard to define, but notoriously hard to compute. I would like to illustrate this circumstance with the help of some examples and discuss a strategy to compute the unknotting number for a large set of knots, namely the positive fibred knots. These include all algebraic knots (that is, the connected links of plane curve singularities) and all positive braids, whose unknotting numbers are known. Work in progress with Lukas Lewark.

The talks will take place in Room B217 Institut de mathématiques (Rue Emile Argand 11) of the Université de Neuchâtel.

For further informations please contact the organisers:
Emanuele Delucchi (Fribourg) - Jan Draisma (Bern) - Elisa Gorla (Neuchâtel)

