

Families of curves on Del Pezzo surfaces

*Niels Lubbes** (RICAM, Austrian Acad. Sc.), *Josef Schicho* (RICAM, Austrian Acad. Sc.)

FRI/P3 15:30–15:50

We present a classification of optimal families of curves on Del Pezzo surfaces. We define a family to be optimal when its curves are of minimal degree in a given embedding and when the generic curve in the family is rational.

A well known example is that there are exactly two optimal families of lines on a quadric surface.

A degree 9 Del Pezzo has infinitely many optimal families which are contained in the linear series of cubics. Del Pezzo surfaces of degree 3 until 8 have a finite number of optimal families and these families are given by the fibers of morphisms. The most interesting cases are Del Pezzo's of degree 1 and 2. Again there are a finitely many optimal families, but there are also families which are not related to a fibration.