**Notions of discrete conformality**

TUE/EPCOS
16:00–16:20

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We explore notions of discrete and semi-discrete conformality. In the discrete setting we study the conformal equivalence of contact element nets. A contact element consists of a point and a normal vector, which defines first order contact in the corresponding point. In order to study conformal geometry we consider the projective model of Möbius geometry and a Möbius invariant cross-ratio notion for projective subspaces. Contact elements appear in the projective model as one dimensional subspaces which provides us with a notion of conformality. There is also a definition for discrete minimal surfaces in this context.

In the semi-discrete setting we study surfaces which consist of ruled surface strips. For semi-discrete surfaces (with additional properties) we consider conformal equivalence, dualizability, and incidence-geometry characterizations of dualizability. We also construct semi-discrete minimal surfaces with a semi-discrete version of the Christoffel dual construction.