Geometry and integrability of pentagram maps

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We define pentagram maps on polygons in any dimension, which extend R.Schwartz's definition of the 2D pentagram map. Many of those maps turn out to be discrete integrable dynamical systems, while the corresponding continuous limits of such maps coincide with equations of the KdV hierarchy, generalizing the Boussinesq equation in 2D. We discuss their geometry, Lax forms, and interrelations between recent pentagram generalizations. This is a joint work with Fedor Soloviev.