Atelier
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Regular triangulations of point sets and solitons in two dimensions

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We give an explicit connection between two-dimensional patterns (soliton graphs) generated by soliton solutions (also obtained by hyperplane arrangements in a tropical limit) and triangulations (subdivisions) of point sets determined by polygons inscribed in conic curves. Two dimensional integrable systems admitting those soliton solutions include the KP equation (for parabola), two-dimensional Toda lattice (for hyperbola) and the Davey—Stewartson systems (for ellipse).

This is a joint work with Jihui Huang.

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