

## **Polynomial Pick forms for affine spheres and real projective polygons**

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Discrete surface group representations into  $\mathrm{PSL}(3, \mathbb{R})$  correspond geometrically to convex real projective structures on surfaces; in turn, these may be studied by considering the affine spheres which project to the convex hull of their universal covers. As a sequence of convex projective structures leaves all compacta in its deformation space, a subclass of the limits is described by polynomial cubic differentials on affine spheres which are conformally the complex plane. We show that those particular affine spheres project to polygons; along the way, a strong estimate on asymptotics is found, which translates to a version of the Stokes data. We begin by describing the basic objects and context and conclude with a sketch of some of the useful technique.

(Joint work with David Dumas.)