Undergraduate Math and Physics Seminar

Making the infinite seem finite: Origins and Applications of Projective Geometry

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Abstract: Projective Geometry originated as an artist's tool during the Renaissance era in an effort to formalize the process by which an artist could create a realistic drawing or painting of a three-dimensional object or scene. As time progressed, these procedures were formalized and then extended to become a branch of geometry. In general, projective geometry in two or three dimensions involves how objects on one line or plane, respectively, project onto a second line or plane through a center of projection. More specifically, projective geometry is the study of the aspects or properties of objects that remain invariant through projection, such as the cross ratio of a set of points. In this presentation I will discuss the origins and significance of projective geometry and provide an exploration into the ways in which the invariance of the cross ratio can be utilized for determining the vanishing point in a sketch or painting, even when limited information is provided.

When: Monday, February 27, 2016, 4:30-5:20 pm
Where: CSUCI, Del Norte 1530