

Volume of closed Riemannian manifolds and geometric invariants related to their area-minimising hypersurfaces.

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The variational methods used to find closed embedded minimal submanifolds in a closed Riemannian manifold define several notions of “systole” and “width”, which can be regarded as functionals on the space of Riemannian metrics. In this talk, we will focus on the properties of some of these functionals on the space of unit volume metrics, mainly when the underlying manifolds are real projective spaces and the minimal submanifolds associated to the functionals are of minimising type. This is joint work with Rafael Montezuma.