SUSANNA DANN, Universidad de los Andes
Affine isoperimetric inequalities on flag manifolds.

We introduce r-flag affine quermassintegrals and their dual versions. These quantities generalize the affine and dual affine quermassintegrals as averages on flag manifolds (where the Grassmannian can be considered as a special case). We establish affine and linear invariance properties and sharp inequalities extending all known results to this new setting. We also discuss inequalities for functional forms of these new quantities. This is joint work with Grigoris Paouris and Peter Pivovarov.