



Contribution ID: 4

Type: **not specified**

Geometric flows, monotonicity formulas, and functional inequalities.

Monday, 7 July 2025 14:00 (1 hour)

Taking advantage of monotone quantities along geometric flow to derive functional inequalities is a recurring scheme in geometric analysis.

Recently, we have provided a unified perspective on a broad range of monotonicity formulas in both linear and nonlinear potential theory, as well as along the inverse mean curvature flow. The quantities involved in this study are generalizations and variants of the Willmore functional. In the talk I will focus on the implications of these formulas and present Willmore-type inequalities in $\mathbb{R}^n$ and in Riemannian manifolds with suitable bounds on the Ricci curvature.

Based on joint works with Luca Benatti, Marco Pozzetta, and Stefano Mannella.

Presenter: PLUDA, Alessandra (Università di Pisa)