## RIESZ INEQUALITY FOR POLYGONS: SYMMETRY AND SYMMETRY BREAKING

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I will discuss counterparts of the classical Hardy-Littlewood and Riesz inequalities when the class of admissible domains is the family of polygons with a fixed number of sides. The latter corresponds to study the polygonal isoperimetric problem in nonlocal version. Based on a joint work with Beniamin Bogosel and Dorin Bucur.