1171-35-81   **Antoine Mellet** (`mellet@umd.edu`), 4176 Campus Drive, college park, MD 20742, and **Yijing Wu*** (`yijingwu@umd.edu`), 4176 Campus Drive, college park, MD 20742. Γ-*convergence of some nonlocal perimeters in bounded subsets of* $\mathbb{R}^n$ *with general boundary conditions.*

We establish the Γ-convergence of some energy functionals describing nonlocal attractive interactions in bounded domains. The interaction potential solves an elliptic equation (local or nonlocal) in the bounded domain and the primary interest of our results is to identify the effects that the general Robin boundary conditions imposed on the potential have on the limiting functional. Depending on the order of the elliptic operator the limiting functional involves the usual perimeter or some fractional perimeters. (Received August 08, 2021)