

ON FRACTIONAL CHEEGER'S INEQUALITY

LORENZO BRASCO (UNIV. DI FERRARA) AND ARIEL SALORT (UBA-CONICET)

For open bounded sets, we prove that the first eigenvalue of the fractional p -Laplacian of order s is estimated from below by the fractional Cheeger constant of order s . The constant entering in the estimate displays the correct asymptotic behaviour as the fractional order of differentiability s goes to 0 and 1.