

## **Lipschitz changes of variables between perturbations of log-concave measures**

MARIA COLOMBO, ALESSIO FIGALLI AND YASH JHAVERI

**Abstract.** Extending a result of Caffarelli, we provide global Lipschitz changes of variables between compactly supported perturbations of log-concave measures. The result is based on a combination of ideas from optimal transportation theory and a new Pogorelov-type estimate. In the case of radially symmetric measures, Lipschitz changes of variables are obtained for a much broader class of perturbations.

**Mathematics Subject Classification (2010):** 49Q20 (primary); 35J96, 26D10 (secondary).