

**MULTIMARGINAL OPTIMAL TRANSPORTATION
PROBLEMS WITH COULOMB COST AND
APPLICATIONS**

LUIGI DE PASCALE

I will describe how a the multimarginal optimal transportation problem with Coulomb cost appears in connection with the so called Density Functional Theory. I will then introduce a variational approximation of the problem and I will show how to obtain, from this approximation, a duality result and some qualitative properties of the minimizers.

UNIVERSITÀ DI PISA

E-mail address: `luigi.de.pascale@unipi.it`