1. **Title:**
Tracing COVID-19 Spread in Italy with Mobility Data

2. **Authors and affiliations and contact emails:**
Nuriye Melisa Bilgin
Department of Economics, Koc University
nubilgin@ku.edu.tr

3. **Abstract**
This paper provides insights for policymakers to evaluate the impact of staying at home and lockdown policies by investigating possible links between individual mobility and the spread of the COVID-19 virus in Italy. By relying on the daily data, the empirical evidence suggests that an increase in the number of visits to public spaces such as workspaces, parks, retail areas, and the use of public transportation is associated with an increase in the positive COVID-19 cases in a subsequent week. On the contrary, the increased intensity of staying in residential spaces is related to a decrease in the confirmed cases of COVID-19 significantly. Results are robust after controlling for the lockdown period. Empirical evidence underlines the importance of the lockdown decision. Further, there is substantial regional variation among the twenty regions of Italy. Individual presence in public vs. residential spaces has a more significant effect on the number of COVID-19 cases in the Lombardy region.

4. **Data Description**
Daily data on COVID-19 cases from regions of Italy, Daily data on Google mobility from regions of Italy

5. **JEL codes for the project**
I10; I18; I31.

6. **Key words**
COVID-19, Coronavirus, Italy, Regional Heterogeneity, Mobility