

Traffic assignment models

Professor

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Institution

University of Pisa,
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General Information

The course will deal with the main models of assignment of the demand to transport networks. The course will be held online and will cover the following topics:

- Brief recall/overview on assignment models for uncongested networks and constant cost functions: AoN (All-or-Nothing) assignment (with Dijkstra algorithm) and the Probit model.
- Deterministic assignment to congested networks: the deterministic equilibrium concept; the Frank & Wolfe algorithm. The diagonalization algorithm.
- Stochastic assignment to congested networks: the stochastic equilibrium concept; the MSA algorithm.
- The system optimum and the 2nd principle of Wardrop
- Overview on dynamic assignment

Materials

No material is needed, the course slides will be provided to the students by the professor. However, a suggested book is (in Italian): Paolo Ferrari, "Fondamenti di Pianificazione dei Trasporti", Pitagora Editrice, Bologna.

Schedule

Dates	Description
12/04/2023 – 14:00-18:00	Online course
14/04/2023 – 09:00-13:00	Online course
19/04/2023 – 14:00-18:00	Online course
26/04/2023 – 14:00-18:00	Online course
05/05/2023 – 09:00-13:00	Online course
Total 20 Hours – 6,7 Credits	

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