Postgraduated or Postdoc position (position DR632) within the EU H2020 Project ADAPT (Advanced Prediction Models for flexible trajectory based operations)

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Title:

Development of an agent model of the air traffic control system in the presence of flexibility in strategic planning of the trajectories.

Abstract:

The aim of the research project is to develop an agent-based model of the air traffic control in the tactical phase of aircraft trajectories by taking into account flexibility aspects in the strategic planning of the trajectories.

The main aim of research is to provide an assessment, from an operational point of view, of the impact on the tactical operations of air traffic control procedures of specific strategic flight plans scheduled by including some flexibility.. Several simulations will be performed, using different tactical scenarios, which will entail the introduction of some disturbances into the system e.g., flight delays generated by mismanagement of airlines, or regulations or weather events. The results will be analysed across several indicators, to ascertain if the flexible solutions proposed solution leads to an overall improvement of the system efficiency, with specific reference to the possibility of generating conflict-free trajectories that also fulfill the capacity constraints of each sector of the airspace.

Deadline: 12 Aprile 2018

Supervisor and Contact : Salvatore Miccichè (salvatore.micciche@unipa.it)

Research group: Osservatorio dei Sistemi Complessi, Dipartimento di Fisica e Chimica, Università degli Studi di Palermo

Research units of the EU project: Università degli Studi di Trieste, Italy; Technische Universiteit Delft, Netherlands; The University of Westminster, United Kingdom; Deep Blue Srl, Rome, Italy.

Starting date: 1 May 2018

Gross salary: 37.500 euro.

Degree: Master degree or PhD in Physics, Mathematics, Computer science, Statistics.