# CULTURAL ALGORITHMS FOR AIR TRAFFIC CONFLICT RESOLUTION PROBLEM

**Author(s):**
- Jihane Alami (FSR, Morocco)
- Abdelhakim El Imrani (FSR, Morocco)

**Abstract:**
The air traffic conflict resolution represents a real time problem. Thus, it must be interesting to apply methods which their computing time is negligible. In this study, we use cultural algorithms to solve an artificial conflict involving five aircrafts. These algorithms present the advantage to evolve 10 times faster than genetic algorithms. We assume that the trajectories of all aircrafts evolve in the horizontal plane. Conflicts are resolved using an adapted horizontal maneuvers model to cultural algorithms. This study will be concerned with the realistic inexact conflict case, in which aircraft's conflict points do not coincide either in time or in space.