Mixed-Integer Nonlinear Programming for Aircraft Conflict Avoidance by Sequentially Applying Velocity and Heading Angle Changes

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PII: S0377-2217(16)31029-3
DOI: 10.1016/j.ejor.2016.12.010
Reference: EOR 14141

To appear in: *European Journal of Operational Research*

Received date: 20 January 2016
Revised date: 24 August 2016
Accepted date: 1 December 2016

Please cite this article as: Sonia Cafieri, Riadh Omheni, Mixed-Integer Nonlinear Programming for Aircraft Conflict Avoidance by Sequentially Applying Velocity and Heading Angle Changes, *European Journal of Operational Research* (2016), doi: 10.1016/j.ejor.2016.12.010

Highlights

- An emerging application of Operations Research arising in Air Traffic Management is considered.
- A new MINLP formulation for aircraft conflict avoidance is proposed.
- A two-step approach is proposed based on sequentially applying heading and speed changes.
- Numerical experiments clearly show the benefit of the proposed methodological approach.