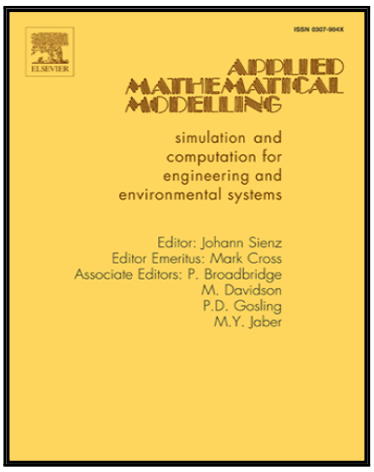

Aerodynamic optimisation of a hypersonic reentry vehicle based on solution of the Boltzmann–BGK equation and Evolutionary Optimisation

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PII: S0307-904X(17)30462-6
DOI: 10.1016/j.apm.2017.07.024
Reference: APM 11874

To appear in: *Applied Mathematical Modelling*

Received date: 12 March 2017
Revised date: 29 June 2017
Accepted date: 18 July 2017

Please cite this article as: B. Evans, S.P. Walton, Aerodynamic optimisation of a hypersonic reentry vehicle based on solution of the Boltzmann–BGK equation and Evolutionary Optimisation, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.07.024

Highlights

- An original approach for solving optimal design of a space vehicle in rarefied hypersonic flow
- Novel flow solver based on the solution of the Boltzmann–BGK equation.
- First ever coupling of Boltzmann solver to an evolutionary optimiser
- Boltzmann–BGK solver rigorously tested on a number of examples