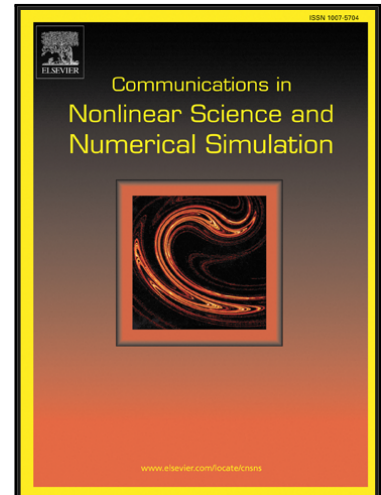


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The Hawk-Dove game in phenotypically homogeneous and heterogeneous populations of finite dimension

Annick Laruelle, André Barreira da Silva Rocha, Ramón Escobedo

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Highlights

- A genetic algorithm is proposed to study the Hawk-Dove game at the microscopic level in finite populations.
- Heterogeneous populations are considered: there are two types of individuals, so that strategies depend on the type of the opponent.
- We show that, as in the Wright-Fisher infinitely many alleles model, the strategies in the population are permanently renewed.
- In spite of that, a stable but dynamic average behavior emerges at the population level.
- The genetic algorithm converges to a neutrally stable set predicted by the evolutionary game theory.

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