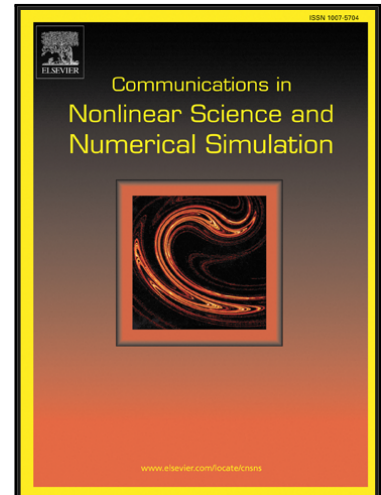


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Stochastic modelling of slow-progressing tumors: analysis and applications to the cell interplay and control of low grade gliomas

Clara Rojas Rodríguez, Gabriel Fernández Calvo, Ignacio Ramis-Conde, Juan Belmonte-Beitia

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Highlights

- We develop, within a stochastic framework, a mathematical model to account for tumor-normal cell interaction.
- We prove the existence and uniqueness of the solutions of the deterministic model and study the stability analysis.
- We introduce an optimal control problem and calculate the optimal control and states.
- We derive analytically the conditions for which singular and bang-bang control exist.

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