

Optimal control problem for the generalized bioconvective flow

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Resumen

We consider an optimal control problem for the generalized bioconvective flow, which is a well known model to describe the convection caused by the concentration of upward swimming microorganisms in a fluid. Firstly, we study the existence and uniqueness of weak solutions for this model, moreover we prove the existence of the optimal control and we establish the minimum principle by using Dubovitskii-Milyutin's formalism.

Sección en el CEDYA 2007: Control y Optimización

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* CGCI MECD-DGU Brazil/Spain Grant 117/06.

[†]Partially supported by Grant FONDECYT 1030943.

[‡]Supported by Research Grant PEI N^o 1320, Universidad de Antofagasta-Chile