

**SELECTION AND TUNING OF CONTROLLERS, BY EVOLUTIONARY
ALGORITHMS:
APPLICATION TO FAST FERRIES CONTROL**

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Abstract: Evolutionary algorithms have been shown very efficient tuning controllers, whose structure has been previously established. In this work, a step forward in the automation of the controllers design process will be tried, an algorithm is implemented which is able to select the appropriate controller structure and to tune it. By means of this procedure, a controller to reduce the motion sickness incidence on a high-speed ship, will be designed. The algorithm will be implemented using parallelization techniques.

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