



# Guaranteed Characterization of Capture Basins of Nonlinear State-Space Systems

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Résumé en anglais	This paper proposes a new approach to solve the problem of computing the capture basin $C$ of a target $T$ . The capture basin corresponds to the set of initial states such that the target is reached in finite time before possibly leaving of constrained set. We present an algorithm, based on interval analysis, able to characterize an inner and an outer approximation $C^- \subset C \subset C^+$ of the capture basin. The resulting algorithm is illustrated on the Zermelo problem.
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## Liens

- [1] <http://okina.univ-angers.fr/nicolas.delanoue/publications>
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=2012](http://okina.univ-angers.fr/publications?f[author]=2012)
- [3] <http://okina.univ-angers.fr/laurent.hardouin/publications>
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