odeintr: High Performance ODE Solvers Compiled On-Demand

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Abstract The odeintr package provides a simple interface for integrating systems of ordinary differential equations. Options are provide for defining the system in R-code or in C++-code. When the system is specified in C++, a set of functions is dynamically compiled and linked to the R session. These functions provide several options for integrating the system, setting and accessing state and recorded output. Flexible recording of system state, along with other information, is accomplished through defining an observer function that is called at specific times during the system integration. Options are available for equispaced, adaptive and pre-defined observer calls.

Introduction

Introductory section which may include references in parentheses (R Core Team, 2014), or cite a reference such as R Core Team (2014) in the text.

Section title in sentence case

This section may contain a figure such as Figure **??**.

Another section

There will likely be several sections, perhaps including code snippets, such as:

```
x <- 1:10
result <- myFunction(x)
```

Summary

This file is only a basic article template. For full details of *The R Journal* style and information on how to prepare your article for submission, see the Instructions for Authors.

Bibliography

R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2014. URL http://www.R-project.org/. [p1]

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