# Title / name of your software

# FluxCalR: calculate CO2 and CH4 gas fluxes measured with static chamber method

# Authors / main developers

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# Abstract.

# This R package is used to calculate CO2 and CH4 gas fluxes measured with static chamber method. It provide a easy way to calculate multiple flux measurements from one data file.

# Keywords:

# *Greenhouse gas flux; carbon dioxide; methane; static chamber*

# *1 Introduction*

# *Introduce the motivation of developing the software, and explain why it is important*

# *2 Problems and Background*

# *Give the formulations of problems to be solved by the software/toolbox*

# *Introduce the background and related work in literature (cite or list algorithms used, other software etc)*

# *3 Software Framework*

# *3.1 Software Architecture*

# *Give an short overview of the overall software architecture*

# *3.2 Software Functionalities*

# *Present the major functionalities of the software*

# *3.3 Sample code snippets analysis (optional)*

# *4 Implementation and Empirical Results*

# *Implementation details*

# *Empirical Results*

# *Conduct empirical studies and compare with the state-of-the-art software if any kindly cite relevant work*

# *5 Illustrative Examples*

* ***Provide*** *at least one illustrative example to demonstrate the major functions* *Optional : you may include one explanatory video that will appear next to your article, in the right hand side panel*. (Please upload any video as a single supplementary file with your article. Only one MP4 formatted, with 50MB maximum size, video is possible per article. Recommended video dimensions are 640 x 480 at a maximum of 30 frames / second. Prior to submission please test and validate your .mp4 file at <http://elsevier-apps.sciverse.com/GadgetVideoPodcastPlayerWeb/verification> . This tool will display your video exactly in the same way as it will appear on ScienceDirect. )

# *6 Conclusions*

# *Set out the conclusion of this original software publication*

# *\*Acknowledgements*

* *Optionally thank people and institutes you need to acknowledge*

# *References*

# *At least 5 are required*

# B- Required Metadata

# *Table 1 – Code metadata*

|  |  |  |
| --- | --- | --- |
| **Nr** | **Code metadata description** | ***Please fill in this column*** |
| C1 | Current Code version | *0.1.0* |
| C2 | Permanent link to code / repository used of this code version | *https://github.com/junbinzhao/FluxCalR/* |
| C3 | Legal Code License | *GPL-2* |
| C4 | Code Versioning system used | *git* |
| C5 | Software Code Language used | *r* |
| C6 | Compilation requirements, Operating environments & dependencies | *R packages: tidyverse, lubridate, assertthat, magrittr* |
| C7 | If available Link to developer documentation / manual |  |
| C8 | Support email for questions | *Junbinzhao1985@gmail.com* |