

# Make the Best Models Ever with FloPy

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#### 2 ABSTRACT

- 3 For full guidelines regarding your manuscript please refer to Author Guidelines.
- 4 As a primary goal, the abstract should render the general significance and conceptual advance
- 5 of the work clearly accessible to a broad readership. References should not be cited in the
- 6 abstract. Leave the Abstract empty if your article does not require one, please see Summary
- 7 Table for details according to article type.
- 8 Keywords: MODFLOW, FloPy, groundwater model, keyword, keyword, keyword, keyword, keyword

# 1 INTRODUCTION

- 9 This is FloPy (Bakker et al., 2016).
- MODFLOW 6 supports multiple models (), multiple packages of the same type, unstructured grids, ...
- 11 giving the statement of the problem
- How we now handle support for rapidly evolving mf6
- Rethinking how to handle new or changing input using automated class generation for models and
- packages; codevelopment of the simulation code and the FloPy support utilities at the same time using
- definition files as the common link. Allows new mf6 capabilities to be immediately supported and
- testable with FloPy
- Support Structured and Unstructured Grids from the bottom up
- Implement new processing capabilities so that users can rapidly construct modelsGeospatial Processing
- easier access of Model Results

## 2 COMMON MODELING TASKS

# 20 2.1 Generating Grids

21 structured grid, triangular mesh, quadtree grid, voronoi

Hughes et al. Running Title

# 22 2.2 Geospatial Processing

23 Intersections, raster resampling, ...

# 24 2.3 Plotting

# 25 2.4 Exporting Grid Data to Other Formats

shapefiles (all grids), NetCDF and VTK export supported for structured grids

#### 3 EXAMPLE

27 Background of the McDonald Valley

# 4 SUMMARY AND CONCLUSIONS

## **ACKNOWLEDGMENTS**

- 28 This is a short text to acknowledge the contributions of specific colleagues, institutions, or agencies that
- 29 aided the efforts of the authors.

## SUPPLEMENTAL DATA

- 30 Supplementary Material should be uploaded separately on submission, if there are Supplementary Figures,
- 31 please include the caption in the same file as the figure. LaTeX Supplementary Material templates can be
- 32 found in the Frontiers LaTeX folder.

# DATA AVAILABILITY STATEMENT

- 33 The datasets [GENERATED/ANALYZED] for this study can be found in the [NAME OF REPOSITORY]
- 34 [LINK].

#### **REFERENCES**

- 35 Bakker, M., Post, V., Langevin, C. D., Hughes, J. D., White, J., Starn, J., et al. (2016). Scripting modflow
- model development using python and flopy. Groundwater 54, 733–739. doi:https://doi.org/10.1111/
- 37 gwat.12413

## FIGURE CAPTIONS



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