INCPAMM Quick Start Guide.

Covers INCPAMM-A and INCPAMM-B.

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Software Requirements:

Requires Mathematica version 8 or newer and Microsoft Excel 2003 or newer. It can probably be made to run on older versions of Mathematica if you are willing to customize the code a bit.

Brief Introduction

INCPAMM *(INitally Curved Plate Multistability Model)* comes in two versions, described below:

INCPAMM-A	This version is based on the model presented in this paper: http://dx.doi.org/10.1016/j.compstruct.2013.11.005. Loads are calculated from material properties and temperature change.
INCPAMM-B	This version is based on the model presented in "Thermally Driven Morphing and Snap-Through Behavior of Hybrid Laminate Shells", pending publication with AIAA. Loads are calculated from inelastic curvatures.

How to run INCPAMM

1. Download INCPAMM-x.nb and the associated INCPAMM-x_Input.xls file to a local directory on your PC. Place both the .nb and the .xls files in the same directory.
2. Open INCPAMM-x.nb with Mathematica, and evaluate the entire notebook. INCPAMM imports material, geometry, and loads from its associated input file spreadsheet. Output data is plotted in the Mathematica notebook and exported to a .csv file within the same directory.
3. Try your own input parameters by editing the input spreadsheet.
4. Both the Mathematica notebooks and the input spreadsheets contain author comments throughout to help the user understand what's going on.

Author's Note

This code is published as open source. Users are free to use, modify, and distribute this code as they please. Additional versions should be named according to the convention INCPAMM-A##, where ## is the version number. Users are encouraged to make their versions of INCPAMM available online. This may be facilitated through the University of Bristol's Research Data Storage Facility. Please contact the author for additional details.