

# Bug solution

Current status Resolved, but unsure why!

- ▶ While investigating this bug, I discovered some useful information about GFortran and Intel Fortran...
- ▶ Compiling with OpenMP flags causes compilers to silently apply flags which change how variables are allocated:
  - GFortran `-fopenmp` implies `-frecursive`, which forces all local arrays to be allocated on the stack.
  - Intel Fortran `-qopenmp` implies `-automatic`, which causes all local, non-`SAVE`d variables to be allocated on the run-time stack.
- ▶ Possible causes:
  - ▶ Compiler bug/non-conforming compiler
  - ▶ Subtle memory corruption issue in code
  - ▶ Something completely different...?