

# New REFIT GitLab repository for collaboration

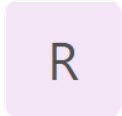

WPEC SG49 Meeting, 16<sup>th</sup> Nov 2020





Tim Ware, Jacobs





# REFIT is now on GitLab!

<https://git.oecd-neo.org/science/wpec/sg49/test/refit>

Nuclear Science > Test area > REFIT > Details





**REFIT**   
Project ID: 211 | [Leave project](#)







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 12 Commits  3 Branches  0 Tags  696 KB Files

development refit / +

History Find file Web IDE

 Merge branch 'docker' into 'development'   
Tim Ware authored 2 days ago  316424ba 

 README  CI/CD configuration  Add LICENSE  Add CHANGELOG  Add CONTRIBUTING  Add Kubernetes cluster

Name	Last commit	Last update
 data	Initial commit of Oct 2009 version from NEA-0914.008 package	1 week ago

## Progress so far...

- ✓ Repository created
- ✓ Initial population from NEA-0914.008 (2010) package (source + test cases)
- ✓ Basic Docker packages and Continuous Integration
- ✓ Fixes to Fortran – so it builds on gfortran 8.1.0
- Remove interactive input – better for command line / CI
- Successfully run existing test cases on CI
- Draft Latex documentation (from original MS Word document)
- Merge in updates from Geel since 2010
- Open up to collaboration

# Wish list of developments for reproducibility

- Code refactoring
  - Improved stability
  - Improved runtime and memory usage
  - Increase size of problem – reduce iterations / user intervention
- Improved interface
  - Simplify user and update documentation
  - Read input parameters direct from SG50 database
  - I/O GNDS format parameters
  - I/O for comparison / QA, e.g. direct calculation for resonance integrals
- Update variable fitting routines
  - Improved stability and reproducibility of solution
  - Increase size of problem – reduce iterations / user intervention
  - Direct production of covariances

# Thank you's

- Mick Moxon - for keeping REFIT going for >40 years
- Michael Fleming - for the enthusiasm to get this collaboration going and for the support with GitLab