Data analysis working group

Model language – simplified model description

```
sample:
    model:
        origin: guess based on preparation / XRR
        stack: air | 10 ( Si 70 | Fe 70 ) | Si
        materials:
          Fe
            magnetic_moment: 2.2
            sld: 5.02e-6
          Si
            formula: SiN0.01
            rel_density: 0.95
    globals:
        length_unit: angstrom
        m_moment_unit: muB
        roughness: 5
        sld_unit: 1/angstrom^2
    reference: ORSO model language | 1.0 | http://bla.bli
```
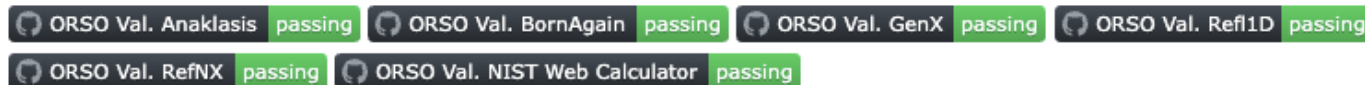
Validation of analysis package calculations

- Checks reflectivity calculation for various test cases
- Improve interoperability by showing how to use various packages to calculate reflectivity
- New polarised datasets added (David Cortie, ANSTO)
  - 100 A Fe film on MgO aligned with field to give maximum SA, minimal SF (all roughness 3 A)
  - 100 A Fe film on MgO aligned at 90 degrees to field to give maximum SF, minimal SA (all roughness 3 A)
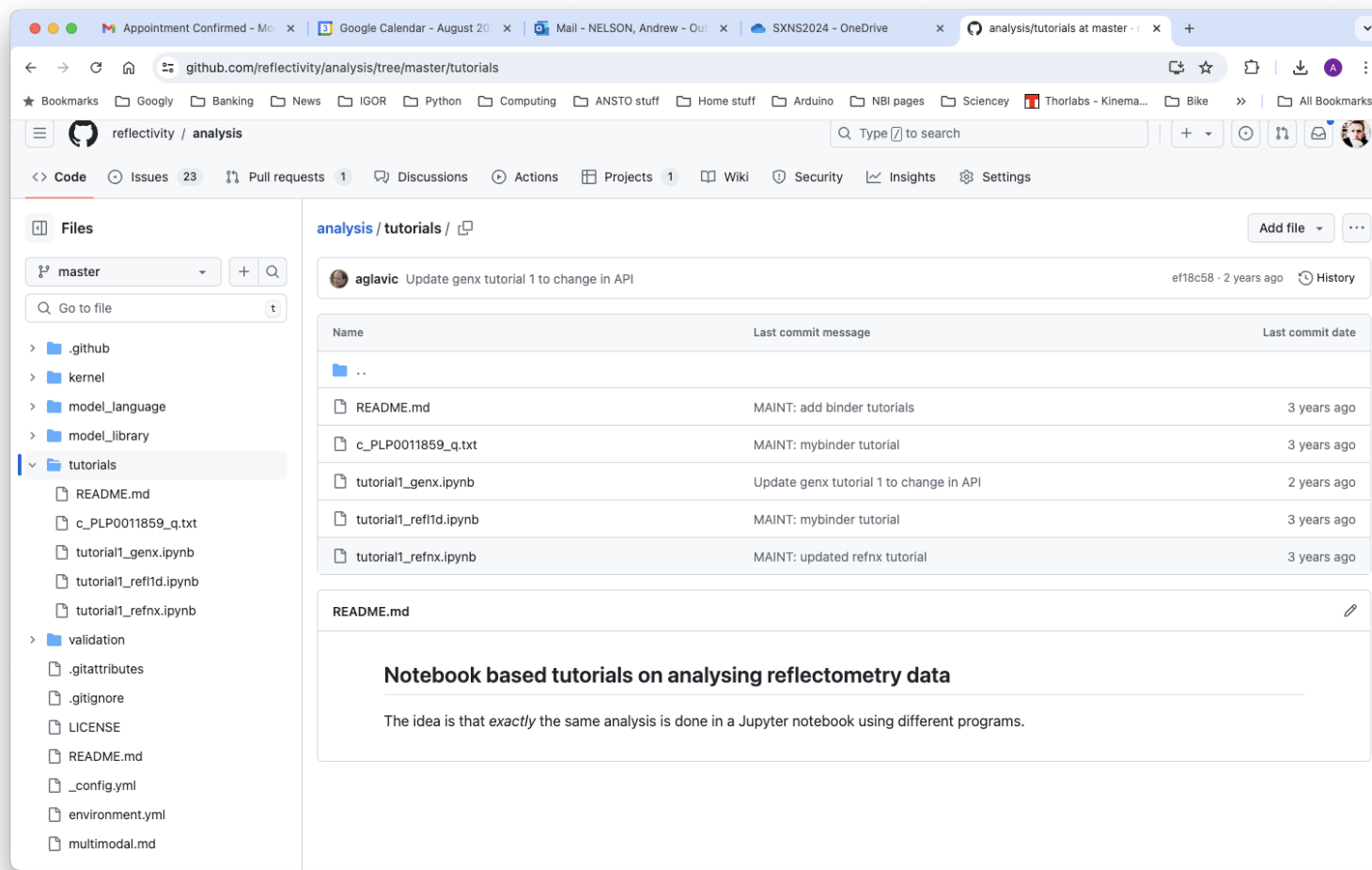
Analysis for Reflectivity Data

ORSO Val. Anaklasis `passing`   ORSO Val. BornAgain `passing`   ORSO Val. GenX `passing`   ORSO Val. Refl1D `passing`

ORSO Val. RefNX `passing`   ORSO Val. NIST Web Calculator `passing`

This is a repository for documents related to the operations of the ORSO Data Analysis working group

Simple tutorials

Starting interaction with ISA for codesigning

- Help distribute reflectometry software packages without security / virus warnings
- Easier to install on managed (corporate, lab) computers