1. Introduction by Tom A. about what a reproducibility group focuses on.
   a. Slide about Stuart Prescott presented at the ORSO 2022 meeting.
   b. Presenting the experiment workflow from beginning to publication with a focus on reproducibility
   c. Introduction ORSO page about reproducibility
2. Christy Kinane (Ch. K.)
   a. Proposition of things that should be presented in the paper (slides)
   b. Artur Glavic - also, the focus should be placed on the experimental aspects - how the experiment should be done
   c. Adrian Rennie - reproducibility - whether we obtain the same results when we repeat the experiment on the same instrument. Ex. problem of different background treatment. The reproducibility should be broken down into several stages.
3. What is reproducibility (Sebastian Kohler)
   a. AG - We shouldn't try to define sample preparation; it is not within our scope. TA response: Some sample description is needed.
4. **From chatGTP (hmm ..) Full Definition: Scientific reproducibility in neutron reflectometry** is the degree to which the measured reflectivity profile $R(Q)R(Q)R(Q)$, and the derived structural parameters (e.g., layer thickness, roughness, and scattering length density profiles), can be consistently obtained across independent experiments—demonstrating that the conclusions drawn are robust and not artifacts of specific setups, procedures, or analyses. (Ch. K)
- **Instrumental reproducibility**: Can different neutron reflectometers yield comparable $R(Q)R(Q)R(Q)$ curves and fits?
- **Procedural reproducibility**: Do different scientists analyzing the same data arrive at the same model or structural interpretation?
- **Long-term reproducibility**: Are results stable over time when repeating the same experiment?
- **Cross-facility reproducibility**: Can different facilities (e.g., ISIS, NIST, ILL) produce matching results on the same sample?
5. JC - We should not focus on other things, such as not focusing on sample growth.
6. AN - There is always something you can do more.
7. AR—Different experiments exist (some demand fast data acquisition, some high resolution, etc.). One issue can be the distinction between curvature and roughness. Radiation effects and other effects can influence reproducibility. It is hard to define something; it is better to think about something.
8. BM - standardized result data comparison. How data should be presented, which statistic, etc …
9. Andrew N. - round robin presentation

   Colombi et al, *J. Appl.Cryst.* (2008), **41**, 143
   a. _____

   - Measurements on: SHARAKU, CANDOR, MAGIK, LR, FIGARO, D17, PLATYPUS, INTER, OFFSPEC, SURF, POLREF, SOFIA
   b.

  c. Presented sample preparation, approach, and the difficulties of sharing samples and working with different facilities can be lengthy.

  d. Rennie et al,. Learning about SANS instruments and data reduction, J. Appl. Cryst., **46** (2013)

  e. Will need help for the round-robin experiment

10. Discuss the definition of an instrument in the NeXUS format. Providing all the necessary information can be challenging, as the resolution involves multiple components.