Applications Support Agenda
SLAC, Dec 7-8, 2020
Phase Plate and Tomography

Disclaimer: The following agenda is suggested. Application personnel will try to be flexible based on customer experience and requests.

Day 1: Phase Plate

Phase Plate:
- Introduction to Volta phase plates.
- Selection and movement of the phase plates.
  - Evaluation of phase plate state (low magnification imaging).
- Phase plate alignments.
- AutoCTF.
  - Autofocus.
  - Autostigmate.
  - Auto-coma.
  - Measure phase plate phase shift to determine activation time.
- Phase plate operation and use.

Learning Objectives:
- By the end of the day, the participants will be able to:
  - Check quality of phase plate by low magnification images.
  - Phase plate alignment.

Day 2: Automated Data Collection – Tomography with Phase Plate

Start —
Lunch —
Finish —
Meeting –

Phase Plate Review:
- Discuss questions about the Volta phase plates.
- Hands on training.
  - Selection and movement of the phase plates.
  - Evaluation of phase plate state (low magnification imaging).
  - On plane condition and activation.

Automated Data Collection with Volta Phase Plates & Tomography:
- Alignment and use of phase plate for data collection with Tomo.
- Setup of Tomo data collection with Volta phase plates.
  - Setting up Imaging presets.
  - Activation of phase plates.
- Setup of batch Tomo data collection with Volta phase plates.

Hands on Tomography Run Setup with Volta Phase Plates:
- Screening samples for automated data collection.
- Setting up a Tomo & Volta phase plate session.
- Set up and run multiple tilt series overnight.

Learning Objectives:
- By the end of the day, the participants will be able to:
- Align/insert/use phase plate for actual data collection.
- Be comfortable with phase plate use.
- Screen and select samples for Tomo with phase plate run.
  - Setup and run Tomo data collection with phase plate.
  - Save and transfer data acquired with Tomo and phase plate.
  - Have overnight data collection running.