

# 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.
  - o Evaluation of phase plate state (low magnification imaging).
- Phase plate alignments.
- AutoCTF.
  - o Autofocus.
  - o Autostigmat.
  - o Auto-coma.
  - o 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:
  - o Check quality of phase plate by low magnification images.
  - o 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.
  - o Selection and movement of the phase plates.
  - o Evaluation of phase plate state (low magnification imaging).
  - o 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.
  - o Setting up Imaging presets.
  - o 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.
-