

# FY18+ LDRD+MVTX/sPHENIX Schedule & Goals:

Updated 4/2/2018, after meeting with ALD and CERN visit (ALICE Production)

- **Readout:**
  - 10/1: ALPIDE + KC705 + FELIX1.5 + RCDAQ, establish communication chain
  - 11/30: ALPIDE + RUv1.0, set config and readout data
  - 12/30: ALPIDE+RUv1.0 + FELIX1.5 + RCDAQ, stable operation @15kHz
  - 1/2018-6/2018: RUv1.x + FELIX2.0 + RCDAQ, stable operation @15kHz
  - Sho, Alex, Mark, Kun, Ming
- **Sensor production, evaluation and optimization for sPHENIX**
  - 5/2018-9/2018: stave production at CERN
  - 3/2018-5/2018: setup laser system and optimize ALPIDE operating parameters
  - Xuan, Sho, Cesar, Ming
- **Telescope:**
  - 1-3/2018: mechanical frame assembly,
  - 3-6/2018: cooling system test
  - 5-9/2018: 4-staves and 4 RUv1.x installation and readout integration
  - 6-9/2018: full system assembly and cooling integration
  - 6/2018-1/2019: cosmic run, system test, data analysis
  - Chris/Walt, Ming, Darren, Sho, Alex, Kun, Cesar and all
- **MVTX technical readiness reviews (sPHENIX internal?)**
  - Pre-review in early 6/2017?
  - 7/2018: stave production
    - <- tied to MVTX stave production at CERN, ~ Aug 2018+
  - 4/2018: electronics production : **moved to 4/2018! Bridging fund required!**
    - <- tied to ALICE RU production schedule, ~Jan 2019
  - Ming, Cesar and all
- **Test beam and analysis at FERMI Lab: 1/2019 – 9/2019**
  - Test beam I @Fermilab and analysis: 3-5/2018
  - Test beam-II @Fermilab, 1-3/2019
  - Data analysis and NIM paper 4-9/2019
  - Ming, Sho, Kun and all
- **MVTX goals**
  - MVTX proposal ready for submission 1/2018
  - Ready for MVTX DOE review, ~8/2018
  - MVTX stave production, 8+/2018, 9 months
  - **MVTX electronics production, 4+/2018, 6 months**
  - Ready for installation: 4/2022
  - **Installation starts in sPHENIX: 6/2022 [per GY]**
  - Installation completed: 9/2022
  - Ready for beam : 1/202
- **sPHENIX milestones**
  - CD-1 Review: 5/2018
  - CD-1 authorization: 7/2018
  - CD-2/CD-3b: summer 2019 (define the baseline)
  - Ready for installation 4/2022 (**MVTX 6/2022, the last one**)
  - Installation completed: 7/2022
  - 1<sup>st</sup> beam: 1/2023
  - CD-4: 1/2024
  - INTT ready for installatio: 4/2022
- **FPC extension R&D and MVTX/INTT integration: 4-9/2018**
  - FPC extension at CERN: ~9/2018 (can do early in May?)
  - FPC power extension at LANL: 4-9/2018
  - MVTX/INTT mechanical integration
  - Ming, Sho, Alex, Walt et al
- **LDRD/MVTX Simulation and analysis**
  - GEANT detector response and simulation
  - Physics sim and analysis, b-jet tagging
  - Sanghoon, Darren, Alex W. et al