

Application of Nara Women's University (NWU) for ePIC

- NWU High Energy Physics group
 - 2 sub-groups, 3 staff members, ~20 students
- Experimental nuclear physics group
 - Co-group leaders : Maya Shimomura (Associate Professor) and Takashi Hachiya (AP)
 - TH was a joint fellow btw NWU and RIKEN
 - **Members: 7 master students and 6 ug-students**
 - Activities: Si detector development and data analysis
 - sPHENIX (now) : Silicon detector construction, operation, and analysis
 - ALICE (now) : Si-CAL (FOCAL) development and analysis
 - PHENIX (now) : Silicon detector construction, Physics data analysis (heavy flavor, flow, high pT suppression) for QGP study

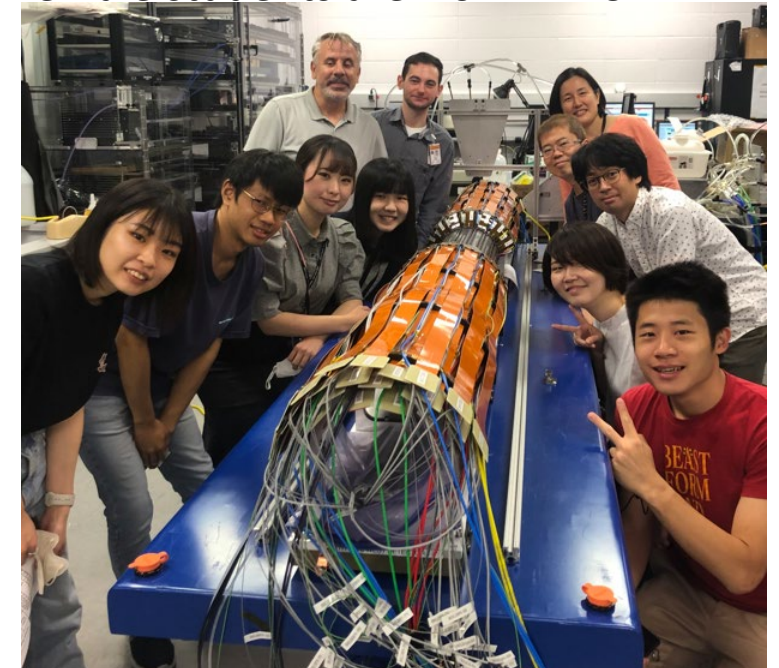


Maya Shimomura



TH

INTT barrel assembly completed
Female students are from NWU



- Research interests at ePIC

- Gluon saturation, Origin of mass, and energy loss in cold nuclear matter
- 20% for now because sPHENIX just started and will increase after sPHENIX completion

- Current plan

- Si-TOF based on AC-LGAD technology and hi-speed readout system.
 - We joined the AC-LGAD development in Japan for a year.
 - Satoshi Yano (Hiroshima) is leading the AC-LGAD development in Japan
 - One prototype is available in Japan and plan to do wire-bonding the AC-LGAD with EICROC at KEK
 - If available more, we would like to study it at NWU also
 - Will work with RIKEN group

INTT beam test in Japan



backup

Experimental nuclear physics group in NWU

- Lead by Maya Shimomura and Takashi Hachiya
 - Newly formed from 2015
 - Maya is a UEC member 2023
- Activities
 - PHENIX experiment at RHIC
 - Construction and operation of BBC, TOF, AGEL, VTX (Si-Vertex)
 - Physics data analysis
 - Heavy flavor, flow, high pT suppression in HI collision
 - sPHENIX experiment at RHIC
 - Construction and operation of INTT (Si-strip for tracking)
 - Prototype R&D of si-strip detector with test beam, cosmic, simulation
 - Long and hi-density FPC cable for data trasmission
 - ALICE experiment at LHC
 - Forward Si-CAL (FOCAL) development
 - Radiation hardness, IV with temperature
 - Tungsten machining (m2 screw)
 - Physics data analysis