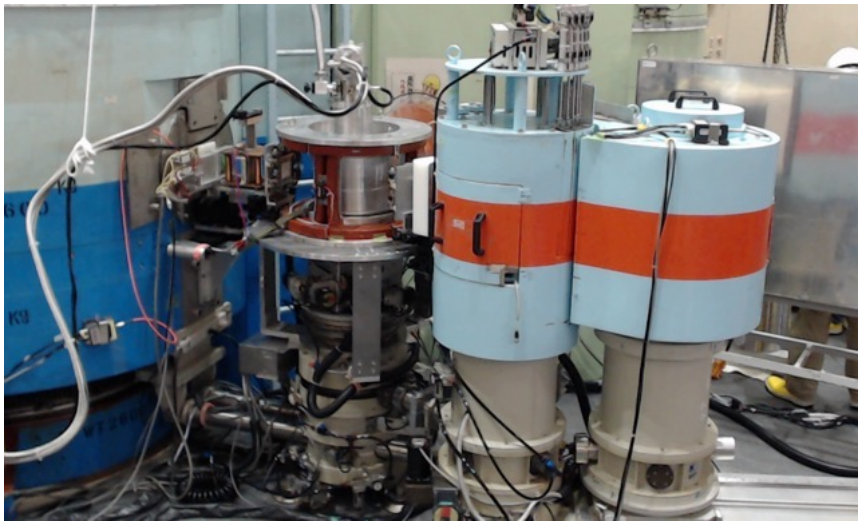
5G: PONTA
POlarized Neutron Triple-Axis spectrometer

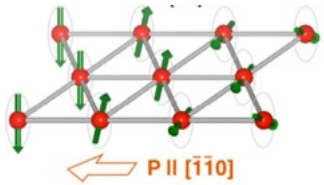


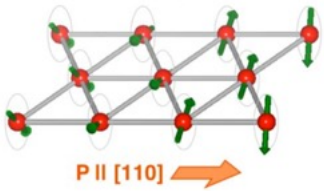
Monochromator	Scattering angle： $24° < 2\theta_m < 43°$ PG(002) vertical focusing Heusler(111) transmission type for polarized measurements
Analyzer	Scattering angle： $0° < 2\theta_A < 43°$ PG(002) vertical focusing, PG(002)vert. and hor. focusing Heusler(111) for polarized meas.
Sample stage	Scattering angle： $-3° < 2\theta_m < 120°$ Beam size: 26 x 40 mm
Detector	^{3}He single channel detector
Collimation	In-pile (1st) : 15'、 40'、 open 2nd to 4th : 20', 40',80'
Options	Supermirror polarizer. (Please contact instrument scientists for details)

5G:PONTA research examples

- ✓ **Correlation between spin helicity and electric polarization in spin-driven (type-II) multiferroics** Phys. Rev. Lett. **98,** 147204 (2007), Phys. Rev. B **77**, 052401 (2008), etc.
- ✓ **Magnetic structure analysis by longitudinal polarization analysis**

  Nat. Commun. **13**, 1472 (2022), Phys. Rev. B **107**, 024405 (2023), Nat. Phys. **19**, 961(2023)
- ✓ **Observations of magnons and crystal field excitations** Phys. Rev. B **74,** 054418 (2006).





Web site: https://sites.google.com/g.ecc.u-tokyo.ac.jp/5g-ponta/