

[ThD1] Neutron Scattering and Imaging I**Date & Time** April 11 (Thu.), 2019 / 09:30-11:50**Place** Room D (# 210+211)**Session Chair** Tae Joo Kim (KAERI)**ThD1-1 [Invited]**

09:30-10:00

Highlights from the Neutron Imaging instrument DINGO at ACNS|ANSTOFilomena Salvemini
ANSTO, Australia**ThD1-2**

10:00-10:20

Water Content Quantification of Diagnosing Pathology of Roots in Soil Using Neutron Computed TomographyCheul Muu Sim^{1*}, Bernd Honermeier², Hwasuk Oh³, and Robert Bellarmin Nshimirimana⁴
¹KAERI, Korea, ²Gissen University, Germany, ³RIC Wonkwang University, Korea, ⁴NECSA, South Africa**ThD1-3**

10:20-10:40

System Design and Application of Symmetric Neutron Grating InterferometerYoungju Kim¹, Daeseung Kim¹, Jongyul Kim², and Seung Wook Lee^{1*}
¹Pusan National University, Korea, ²KAERI, Korea**ThD1-4 [Invited]**

10:40-11:10

Plastic Anisotropy and Deformation-Induced Phase Transformation of Additive Manufactured Stainless SteelHobyung Chae¹, E-Wen Huang², Wanchuck Woo³, Stefanus Harjo⁴, and Soo Yeol Lee^{1*}
¹Chungnam National University, Korea, ²National Chiao Tung University, Taiwan, ³KAERI, Korea, ⁴J-PARC Center, Japan**ThD1-5**

11:10-11:30

Using Spatially-resolved Diffraction Measurement and Elastic-plastic Finite Element Modelling to Study Effects of Residual Stress on Ductile FractureHuai Wang¹, Wanchuck Woo^{2*}, Dong-Kyu Kim³, Soo Yeol Lee¹, and Gyu-Baek An⁴
¹Chungnam National University, Korea, ²KAERI, Korea, ³University of Ulsan, Korea, ⁴Chosun University, Korea**ThD1-6**

11:30-11:50

Through-thickness Residual Stress Distributions in 3D Printing Ferritic-austenitic Steel Structures for the Nuclear Power Plant ApplicationWanchuck Woo^{1*}, Dong-Kyu Kim², and Vladimir Luzin³
¹KAERI, Korea, ²University of Ulsan, Korea, ³ANSTO, Australia