Overview of INL RELAP5-3D system code and examples of applications to LWR and SFR safety analyses
Carlo Parisi, Idaho National Laboratory

Abstract:

Idaho National Laboratory RELAP5-3D code is one of the most widely used system thermal-hydraulic codes. It belongs to the RELAP5 code family and it has been under continuous development since the 1980s. In this seminar, an overview of the code structure and of its modeling and simulation capabilities will be presented. Coupling of RELAP5-3D with other codes will also briefly discussed. Finally, examples of RELAP5-3D applications to advanced safety analyses for LWR and SFR will be illustrated.

Bio:

Dr. Carlo Parisi is a scientist with over 15 years of experience in academics and government laboratories. In 2004 he got a M.Sc. and in 2008 a Ph.D. in Nuclear Engineering at University of Pisa, Italy. His area of expertise includes neutronics, thermal-hydraulics, uncertainty quantification and coupled codes technology. He has been a research assistant at University of Pisa (2008-2010) and researcher at ENEA, Italy (2011-2015). Since 2015, he works at the Idaho National Laboratory, USA, performing researches on risk-informed methodologies (US DOE LWRS project), RELAP5-3D code assessment and safety analyses of Versatile Test Reactor.