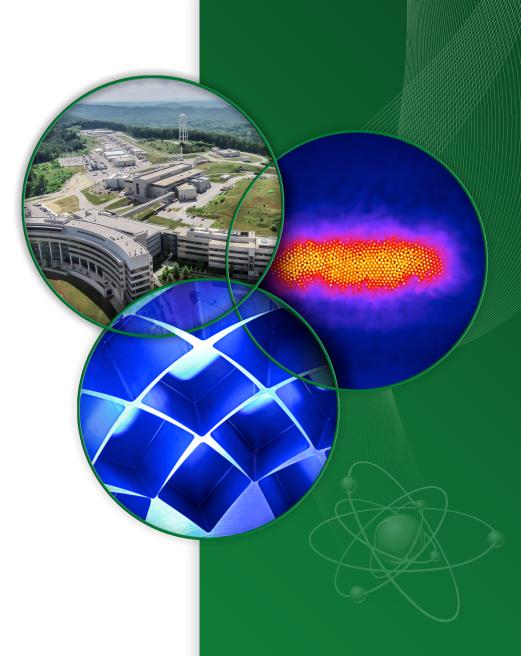
# **Open XAL Highlights from IPAC'15**

Thomas Pelaia II, Ph.D.
ORNL
CSNS Software Symposium
June 11-12, 2015





# **Topics**

- Several Papers
- Moving to Java 8 with JavaFX
- Online Model
- ESS Python Integration



### **Open XAL Status Report**

# **Site Adoption**

Facility	Status
CSNS	Developing XAL applications for RCS Will migrate to Open XAL
ESS	Physics group chose Open XAL for beam commissioning
FRIB	Open XAL tested for cryomodule commissioning Open XAL as Backup plan
GANIL Spiral 2	Adopted Open XAL
SNS (ORNL)	Adopted Open XAL with XAL as a backup
TRIUMF	Contributing to Open XAL



# **Java 8 Migration**

- Open XAL builds without warning on Java 8
- Needs testing
- Will migrate to Java 8
- JavaFX will be supported in Application Framework and replacing Bricks GUI framework



#### **Online Model**

- Online Model has been refactored using Generics
- New Simulation engine
- Lattice Generator being modified to retain RF Cavity structure
- TTF coefficients moving from RF Cavity to RF Gap for better accuracy
- Discussed future support for GPU computing



# **JPype Integration**

- ESS is developing JPype integration for Open XAL
- Replaces Jython for Python scripting
- Live scripting for machine studies with saving to logbook
- Plotting
- Browser integration

