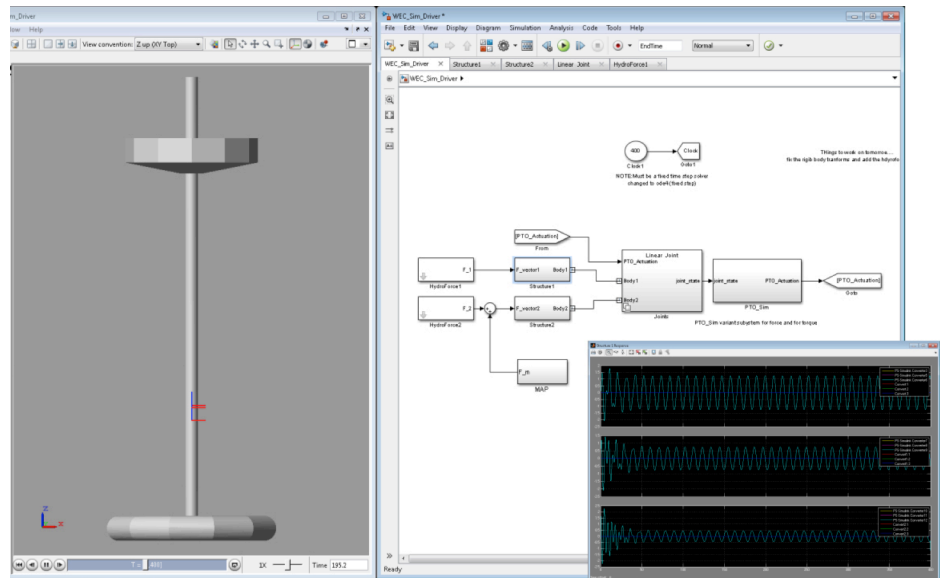# Sandia-NREL Wave Energy Converter (WEC)-Sim Development Meeting

Kelley Ruehl and Sam Kanner (both in Sandia's Water Power Technologies Dept.) hosted a three-day meeting onsite at Sandia that was attended by Yi-Hsiang Yu, Michael Lawson, and Adam Nelessen of the National Renewable Energy Laboratory to further develop WEC-Sim, a multiple-year, DOE-funded, joint NREL/Sandia project to develop an open source Wave Energy Converter (WEC) modeling tool.

This meeting's accomplishments included restructuring the code into a more user-friendly form and integrating the following subsystems

- time-domain simulation modules
- hydrodynamic force calculation block
- power take-off module
- the six degree of freedom multiple-body solver
- mooring module

A heaving two-body point absorber modeled in WEC-Sim.

into the new WEC-Sim model structure. A simple heaving two-body point absorber was then simulated using the new framework.

The WEC-Sim team feels confident that the new WEC-Sim model structure will allow for a more user-friendly interface and relatively seamless avenue to model a vast array of WEC designs, ones that operate in different degrees of freedom, with different power conversion trains, mooring configurations, etc.

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