

SE 290 SEMINAR

# WHAT WE LEARNED FROM PARALLEL LINEAR AND NON-LINEAR ANALYSES

JANUARY 11TH  
WARREN LECTURE HALL 2204  
12:00 – 12:50 PM

## ABSTRACT

When designing a structure, a critical decision is whether the lateral force resisting system will be developed using linear or non-linear analysis techniques. On our new design, laboratory research projects at UCSF, the Technical Performance Criteria requires us to do both analyses in parallel. Can you predict what are the differences in the overall design of the lateral force resisting system depending on which type of analysis is used? Test your predictions against the results from two case studies where parallel linear and nonlinear analyses were completed. One case study features a recently completed concrete structure while the other study features a recently completed steel structure.



**ARIEL CREAGH**  
**DEGENKOLB ENGINEERS**

## SPEAKER BIOGRAPHY

Ariel Creagh, S.E., P.E. is an Associate at Degenkolb Engineers where she specializes in the structural design of hospitals, laboratory research buildings at universities, and peer reviews. She has also participated in a wide variety of other projects spanning from seismic rehabilitation, construction failures, and research. She started in the Degenkolb San Francisco office in 2014 and has been in the Los Angeles office since 2020. While in the bay area, she was the chair of the Public Outreach Committee of SEAONC and the Vice President of the Student Impact Project for Engineers Alliance for the Arts.