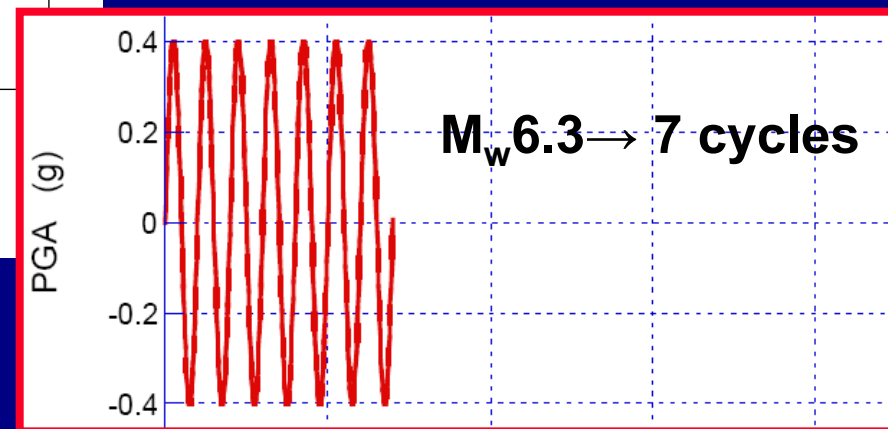
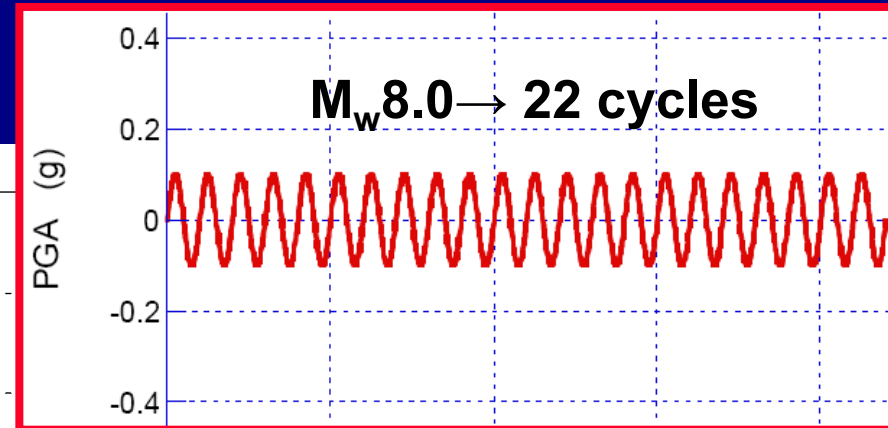
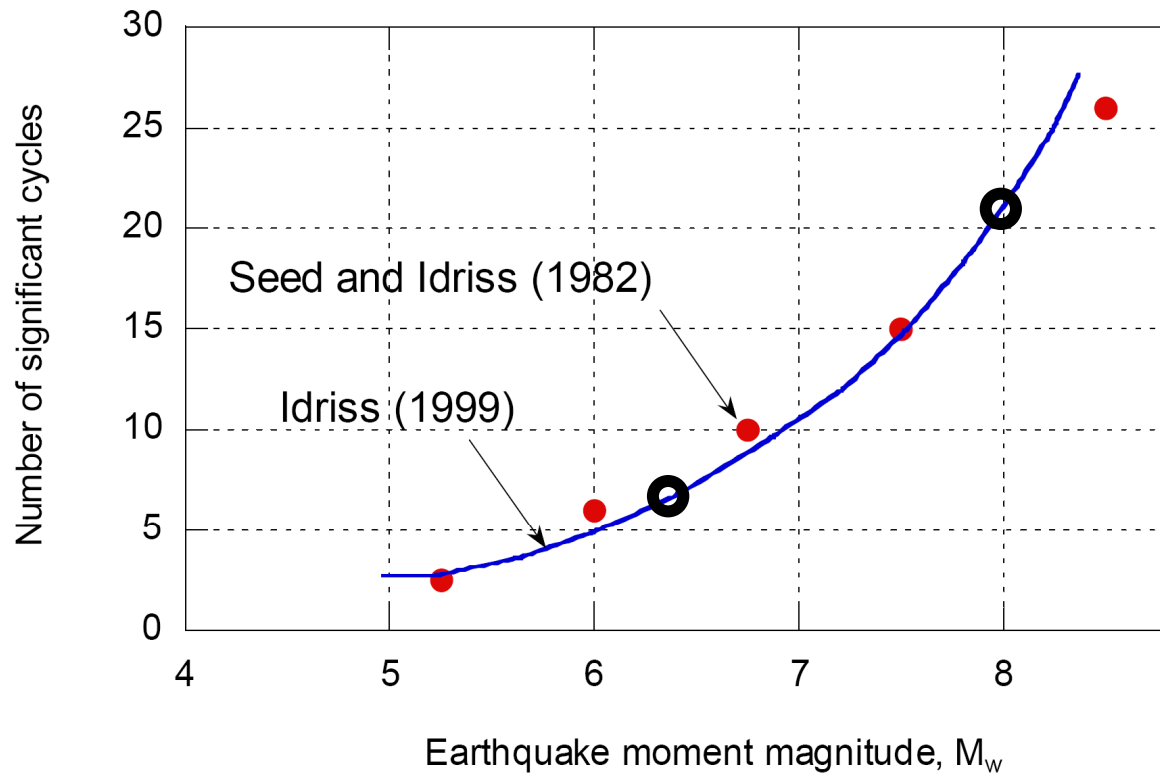


Liquefaction Impacts from an Alpine Fault Earthquake

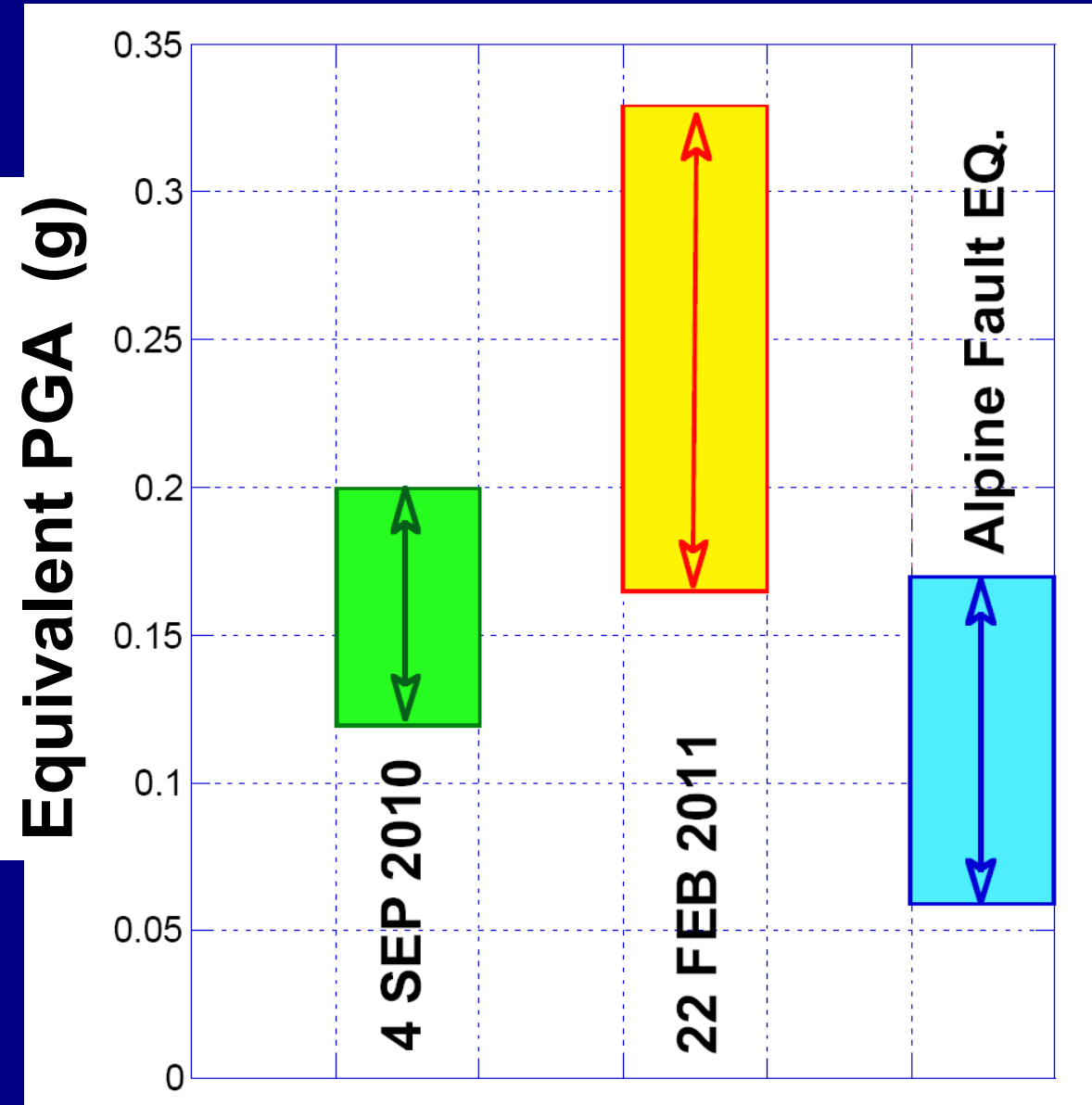
(Predictions based on simplified analysis)

Concept for Comparisons



Comparison of Extent of Liquefaction

Severity of shaking
(liquefaction impacts)
within CBD



*(Estimates based on
simplified liquefaction
triggering analysis – CSR)*

Typical Foundation Methods that Would Avoid such Failures

General Considerations

1. There are significant uncertainties both in seismic loads (ground motion characteristics) and soil behaviour
2. It is important to consider the soil-foundation-building as a system and understand (anticipate) how these critical components will interact during strong earthquakes *(particularly important in case of deep alluvial soils)*
3. Site-specific investigations and design

Types of Foundations and Procedures Required

1. Robust shallow foundations often accompanied by ground improvement
2. Deep pile foundations reaching competent foundation layers at large depths
3. Attention to details is important
4. Site-specific and structure-specific considerations are needed
5. The dynamic response of the integrated soil-foundation-structure system should be considered