



# Quantification of Building Seismic Performance Factors

FEMA P695 / June 2009



FEMA



- FEMA P695:  
Benchmark  
code based on  
probability of  
collapse.
  - (UCQC project  
by Masoud M  
assessing NZ  
code)

# Repairable limit state?

- Define a “repairable limit state” for concrete frames based on test data
  - UA beam tests by Kai Marder
  - Tests in Japan (Prof Maeda)
  - Insurance data??
- Assess probability of being in a repairable limit state based on similar methodology to P695.

# Comparisons

- Systems:
  - NZ high ductility design
  - NZ low ductility design
    - Low ductility detailing
    - High ductility detailing
  - Japanese design approach
- Compare performance
  - Collapse
  - Repair
- Compare Costs

# Questions

- How to define repairability limit state at system level?
- How low ductility (stronger) systems will impact desired architecture in NZ?