

# Discussion Topics

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## 1) Feedback & Issues

- Grind\_conf
- Zoneconf2/Strec support?

## 2) Q/A?

## 3) Feature Requests, R&D

## 4) Coordination, Collaboration (Support? e.g., IADB, USAID?)

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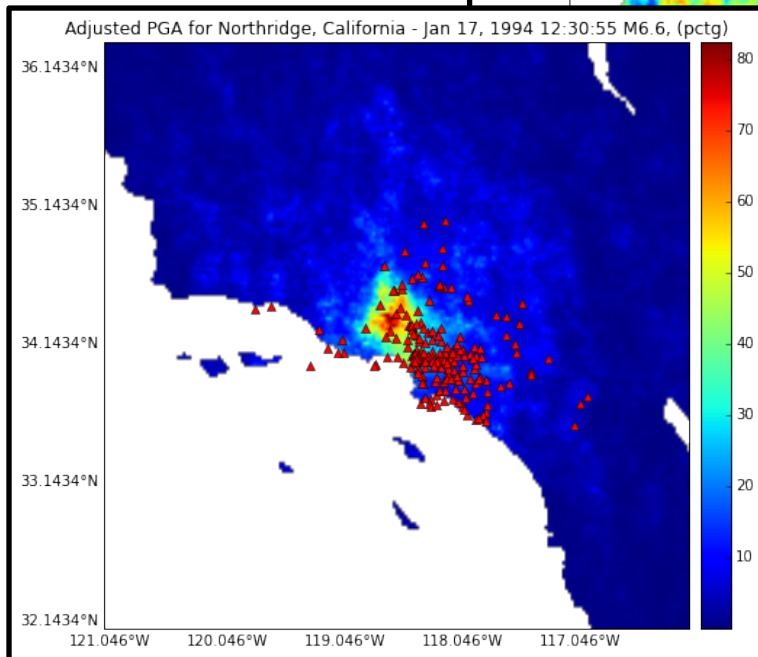
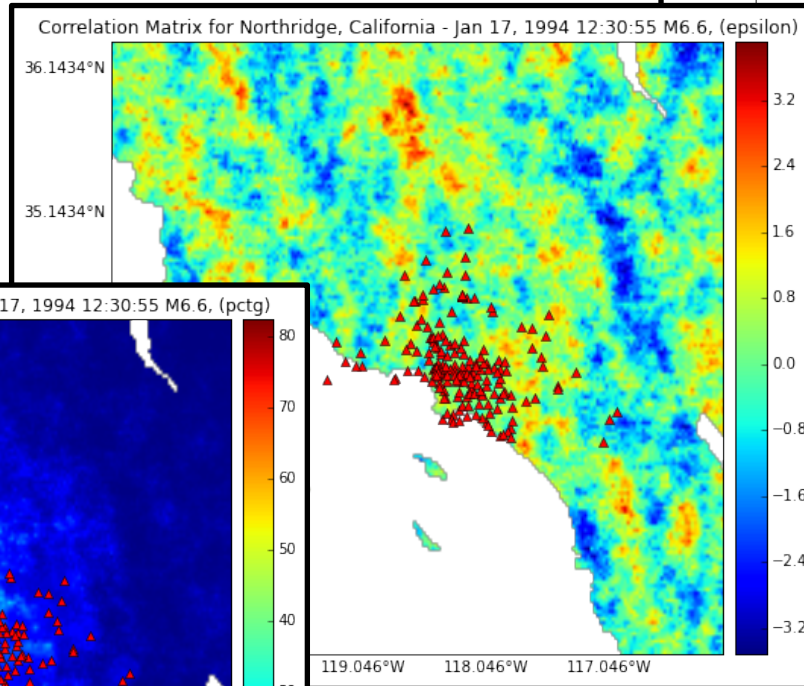
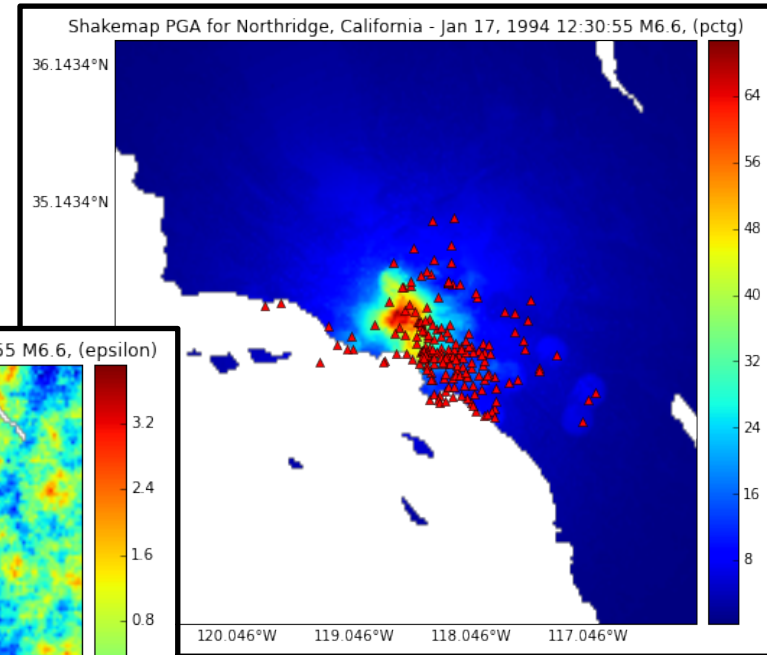
# Future Directions

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- 1) Site-specific amplification (frequency, amplitude, and spatially variable. (“Mexico City” effect)
  - 2) Spatial Variability for scenarios, real events
  - 3) Landslide & Liquefaction products
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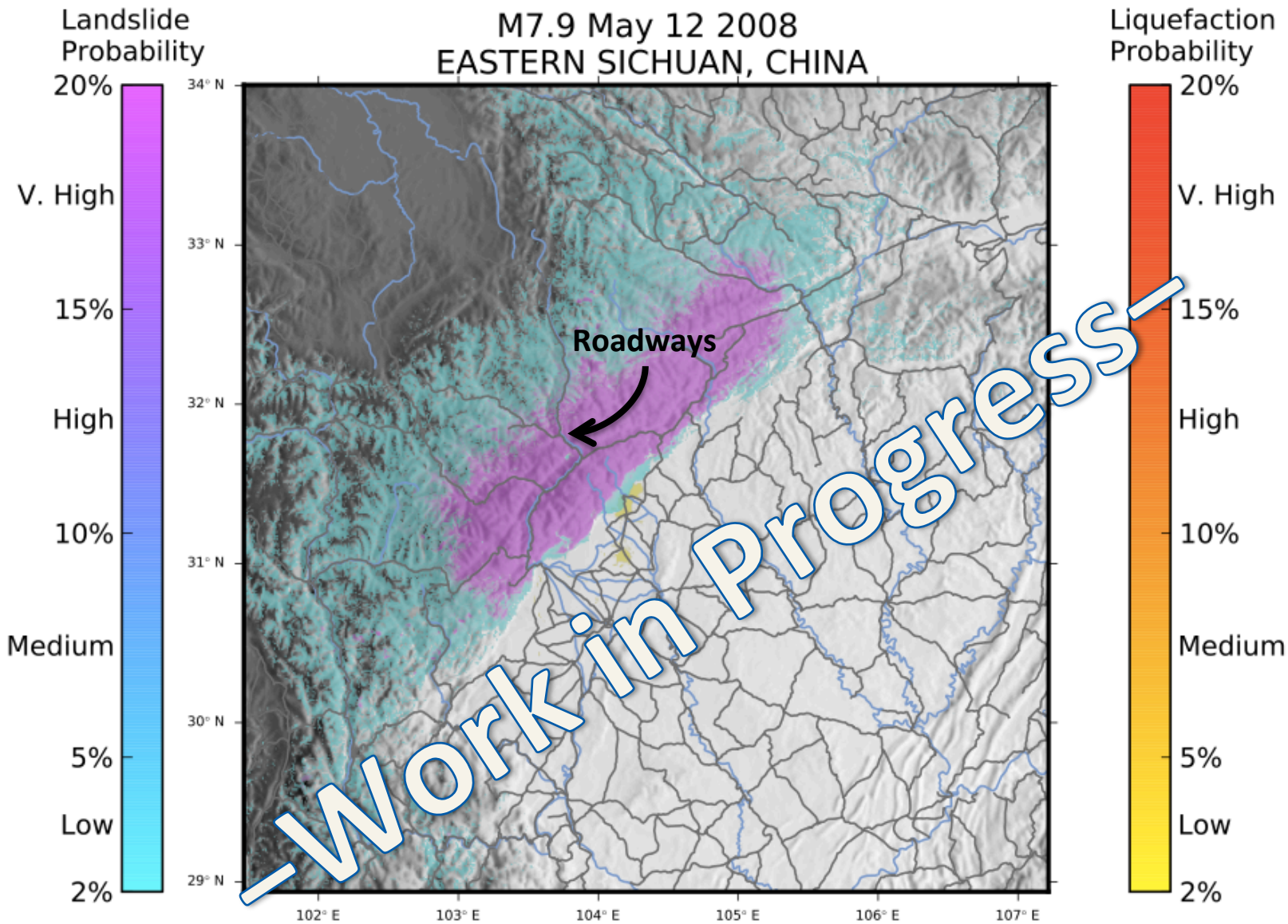
# Correlated Spatial Variability of Ground Motions (for ShakeMap & Loss Estimates)

- Sarah Verros, Colorado School of Mines
- Bruce Worden, Golden
- Nick Horspool, GNS, New Zealand
- David Wald, USGS/Mines
- Ganesh, Colorado School Mines (Math Dept.)



- Spatial variability conditioned on station locations
- Python,
- Computationally optimized
- GEM OpenQuake Modules
- ShakeMap movement towards python from PERL

M7.9 May 12 2008  
EASTERN SICHUAN, CHINA



Landslide Area	15,617 km <sup>2</sup>
# of cells	181,730
Maximum probability	100.0%
Mean probability	11.7%
Minimum slope	5.0°

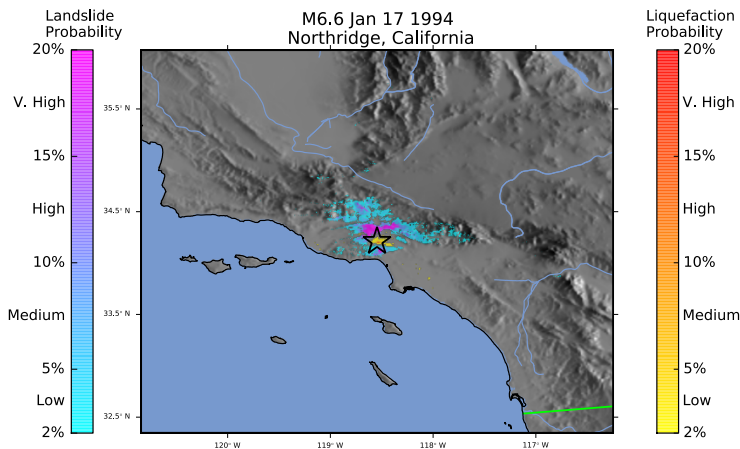
Liquefaction Area	39 km <sup>2</sup>
# of cells	1,563
Maximum probability	6.9%
Mean probability	1.7%
Maximum slope	5.0°



# Landslides & Liquefaction: ShakeCast Implementation

## Requires:

1. USGS provide & distributed landslide & liquefaction likelihoods in ShakeMap-like grid (*geogrd.xml*).
2. ShakeCast retrieves *geogrd.xml* to provide users with site-specific likelihoods in categories for facility evaluation.



## Requires:

1. User has higher resolution/quality geotechnical information, e.g., susceptibility maps (separate landslide & liquefaction maps).
2. Look up tables for peak motion → likelihood levels (low, medium, high, very high).

