

Advances of International Collaboration on M9 Disaster Science



UW-TU: Academic Open Space (UW-TU:AOS)



Sendai



Seattle



An administrative framework to catalyze collaborative research, education and information exchange between UW and TU.

UW-TU:AOS brings researchers from academia, industries and government together to discuss technological challenges, share their research, explore opportunities for joint projects, promote innovation and discovery, and provide an administrative infrastructure to facilitate international cooperation.



Inter



Partnership

Project Definition Workshop on M9 Disaster Science

March 13-14, 2019 at the University of Washington



12 Researchers from Japan, 8 from Chile, 24 from USA

Funding from TU/IRIDeS, UW, Cigiden, NSF

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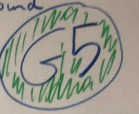
- Group 1: Observations and early warning
- Group 2: Remote sensing
- Group 3: Planning and risk assessment
- Group 4: Tsunami modeling
- Group 5: Landslide/rockslide modeling
- Group 6: Subduction zone seismology, tsunami sources, PTHA
- Group 7: Structural engineering



Subduction Zone coseismic landslides in Cascadia, Chile, & Japan:
under different climatic/weather & material property regimes

* Earthquake timescales & longer term landscape evolution
(short-term, allows us to consider risks)

PROJECT GOAL: We are trying to understand
AND predict the land surface response to strong ground
motion in subduction zone settings.



Objectives: To account landscape sensitivity to produce
landslides in different subduction zones (Cascadia = long
recurrence interval, Chile has very dry & very wet climatic conditions,
Japan has recent ⁽²⁰¹¹⁾ EQ + coastal fault EQs to compare under diff. weather
conditions) ^(2011, 2013)

Methods: 1) landslide mapping & characterization from
remote sensing (some existing, some new data collection)
2) Field work to address local site material properties
3) Numerical simulations: Ground motion Synthetics
landslide modeling from ground motions ("Newmark" style
analysis)
landscape evolution modeling of subduction zone
landscapes

Risks: TIME! (we don't have any :))

Roles: each participant has to provide relevant
info from their country.
(students!) → we need lots of help. & \$

\$
resources: write proposal?
existing resources?

<http://tinyurl.com/m9workshop>