



## SCEC Earthquake Simulators Workshop

November 2-6, 2007

Embassy Suites Mandalay Beach Resort, Oxnard, CA

### Friday, November 2<sup>nd</sup>

4:00 pm	Hotel Check-In	
5:30 – 7:30	<i>Manager's Reception (hosted by Hotel daily)</i>	<i>Surf Room</i>
7:00 – 8:30	<i>Welcome Dinner</i>	<i>Capistrano's</i>

### Saturday, November 3<sup>rd</sup>

7:00 – 10:30 am	<i>Breakfast</i>	<i>Surf Room</i>
	<b>Introductory Presentations</b>	<b>Embassy Ballroom</b>
8:00 – 8:15	Welcome and Intro: Compromises and Challenges and Goals in Simulations – Terry Tullis	
8:15 – 8:30	Role of EQ Simulators in SCEC – Tom Jordan	
8:30 – 9:00	Brief intro to hard problems we face (friction, dynamics, geometric complexity, boundary conditions, elastic heterogeneity, inelastic off-fault deformation, how to use other data, other issues)	
9:00 – 9:45	John Rundle	
9:45– 10:00	Discussion	
10:00 – 10:30	<i>Break</i>	
10:30 – 11:15	Steve Ward	
11:15 – 11:30	Discussion	
11:30 – 12:15	Russell Robinson	
12:15 – 12:30	Discussion	
12:30 – 1:30 pm	<i>Lunch</i>	<i>Capistrano's</i>
	<b>Introductory Presentations Continued</b>	<b>Embassy Ballroom</b>
2:00 – 2:45	Jim Dieterich	
2:45 – 3:00	Discussion	
3:00 – 3:45	Terry Tullis	
3:45 – 4:00	Discussion	
4:00 – 4:30	<i>Break</i>	
4:30 – 5:15	Nadia Lapusta	
5:15 – 5:30	Discussion	
5:30 – 7:30	<i>Manager's Reception (hosted by Hotel daily)</i>	<i>Surf Room</i>
6:30 – 8:00	<i>Dinner</i>	<i>Capistrano's</i>



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### Sunday, November 4<sup>th</sup>

7:00 – 10:30 am	<i>Breakfast</i>	<i>Surf Room</i>
	<b>Friction and Dynamics</b>	<b>Embassy Ballroom</b>
8:00 – 8:15	Friction – Terry Tullis, Nadia Lapusta and others (brief presentations and extensive discussion)	
10:00 – 10:45	<i>Break</i>	
10:45 – 12:00	Dynamics and quasi-dynamics – Nadia Lapusta and others (brief presentations and extensive discussions)	
12:30 – 1:30 pm	<i>Lunch</i>	<i>Capistrano's</i>
	<b>Geometric Complexity and Other Issues</b>	<b>Embassy Ballroom</b>
1:30 – 3:00	Geometric complexity at all scales – John Rundle, Steve Ward, Russell Robinson, Jim Dieterich (brief presentations and extensive discussion)	
3:00 – 3:45	<i>Break</i>	
3:45 – 5:00	Boundary conditions, elastic heterogeneity, inelastic off-fault deformation, input data to use – Jim Dieterich and others (brief presentations and extensive discussion)	
5:30 – 7:30	<i>Manager's Reception (hosted by Hotel daily)</i>	<i>Surf Room</i>
6:30 – 8:00	<i>Dinner</i>	<i>Capistrano's</i>

### Monday, November 5<sup>th</sup>

7:00 – 10:30 am	<i>Breakfast</i>	<i>Surf Room</i>
	<b>Computation Reducing Approaches</b>	<b>Embassy Ballroom</b>
8:00 – 9:45	Nadia Lapusta, Terry Tullis, Jim Dieterich, and others	
9:45 – 10:30	<i>Break</i>	
10:30 – 12:00	Discussion	
12:30 – 1:30 pm	<i>Lunch</i>	<i>Capistrano's</i>
	<b>Evaluating and Comparing Simulators; Funding</b>	<b>Embassy Ballroom</b>
1:30 – 3:00	How do we evaluate simulators, can we define standard problems all simulators can deal with, can we define uncertainties in simulator results, what analysis/data-mining tools need to be developed and how should this be done? Includes Ruth Harris' thoughts based on SCEC's dynamic rupture code comparison exercise.	
3:00 – 3:45	<i>Break</i>	
3:45 – 4:30	Funding possibilities via SCEC and other sources – Need to clearly define the reasons we need simulators	
4:30 – 5:00	Do we need a funding-oriented workshop with program administrators?	
5:00 – 5:30	General Discussion	
5:30 – 7:30	<i>Manager's Reception (hosted by Hotel daily)</i>	<i>Surf Room</i>
6:30 – 8:00	<i>Dinner</i>	<i>Capistrano's</i>



## **SCEC Earthquake Simulators Workshop**

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### **Tuesday, November 6<sup>th</sup>**

7:00 – 10:30 am *Breakfast*

*Surf Room*

#### **Next Steps**

***Embassy Ballroom***

8:00 – 8:30 Code sharing and collaboration

8:30 – 8:45 Future science/technical workshops

8:45 – 9:15 Creation of some formal simulator-collaborative-network and/or website to facilitate progress?

9:15 – 10:15 Steps needed for conducting SCECC proposal project

10:15 – 11:00 *Break*

11:00 – 11:30 Closing perspectives on workshop and future from: Rundle, Ward, Robinson, Dieterich, Tullis, and Lapusta

11:30 – 12:00 Closing perspectives on workshop and future from other participants

12:00 pm Workshop adjourns



## SCEC Earthquake Simulators Workshop Attendees

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Nick Beeler	USGS	nbeeler@usgs.gov
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