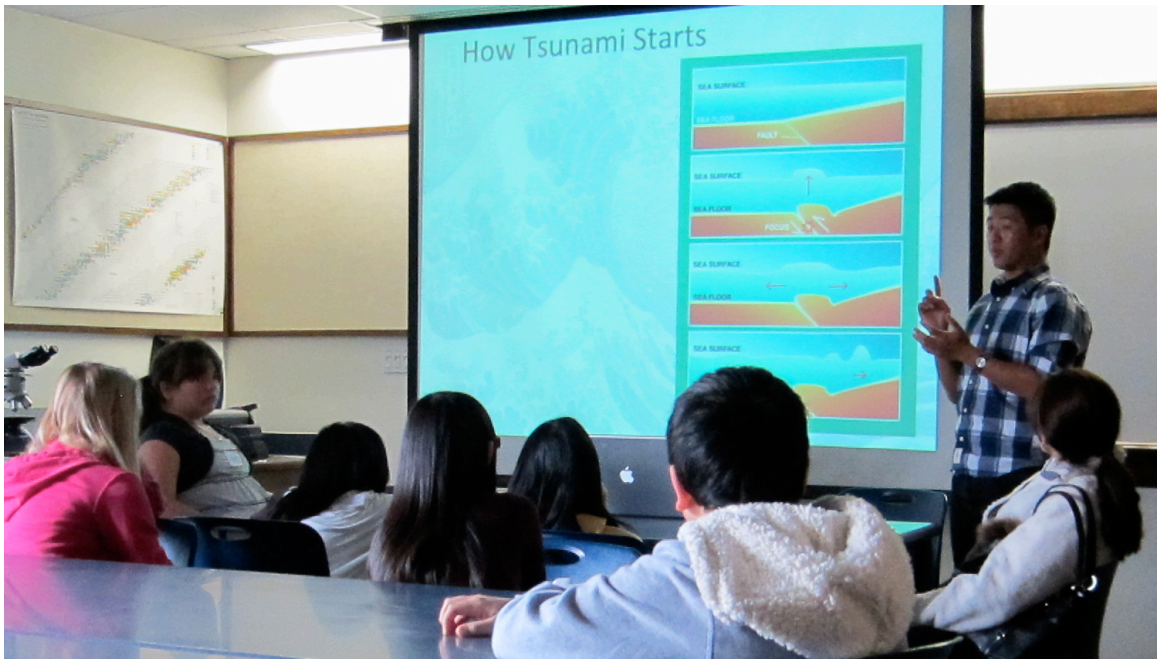
TO tour
March 1, 2011
San Marino Middle School
Junle Jiang
Gave four 20-minute presentations to about 15 6th grade students

I chose the topic of tsunami, since the topic is not covered before and it is one important ingredient in my own research.



The 15-20 min presentation consisted of (1) introduction of personal experience; (2) quiz on tsunami; (3) illustration of what tsunami is (videos of 1983 Japan Sea tsunami and 2004 Indian Ocean tsunami); (4) basic science of tsunami (generation, propagation, damage, preparedness) (5) scientific research on tsunami (Pacific Ocean DART system, modeling of tsunami arrivals) and my own research project (combining tsunami records and geodetic data to infer for slip model of large earthquakes)

I feel that it's indeed important to know the science background of those kids we're interacting with, which also helps us to interest them accordingly. The quiz that I put in the beginning of the presentation served the purpose well, though not perfect to involve every kid actively in the interaction. Several aspects to be improved: (1) adopt multiple choices that the whole class could vote on; (2) distribute handout that are visually more interesting.

The part of science education on tsunami could be improved more in terms of its forms. Videos are fun and kids are keen to watch. Many more animations and

interaction could be used instead of slide presentation, especially on topic of tsunami mechanism. I think for the next time I would first introduce an animation and then try to produce a similar water wave in a box experiment. Depending on the science level of the kids, we can either do the demonstration or let them come up with an idea. It would be more intuitive than what I could say on a slideshow.

In retrospect, I think the part of research should be highlighted. For my topic, the DART system would be interesting to spend enough time talking about, with system animation and modeling result. I didn't covered that enough for the first two groups due to lack of time, but I would shift the focus to this part if I were to do it again, since this is something they won't be taught in their schools. Besides, I also did some introduction on my education background and current research related to tsunami. I think it's also a great opportunity for us to show them what it is like to be a scientist and our personal story that lead us here in Caltech.