## Researchers gather for IPRC 15th Annual Symposium

In a year of a wopper El Niño, record-breaking global temperatures, and the lowest arctic ice maximum, climate science research continues its steady march forward. IPRC professors, research scientists and post-doctoral fellows assembled at the East-West Center for a day of communicating their on-going research at the 15<sup>th</sup> Annual Symposium on March 29.

After a warm welcome by director Kelvin Richards, oral presentations lasted through the day, and were followed by a poster session in the late afternoon, all covering the various specialties of the IPRC working groups. Some presentations focused on modeling of processes involved with large-scale atmospheric phenomenon, like El Niño, the MJO, and East Asian Monsoons. Others examined the

structure and mixing of the upper ocean through eddies, currents, salinity variability, and sheardriven turbulence. Several posters and talks pushed forward attempts at sub-seasonal, seasonal, and decadal predictions of future changes in sea level, rainfall, temperature, and vegetation cover. Others considered air-sea interactions, looking at effects of ocean currents on the atmosphere, effects of atmospheric disturbances on the biogeochemistry of the



ocean, and the tortuous journey of marine litter tossed about by currents and winds. A particular highlight of the day was the invited talk of Richard Zeebe, of the Department of Oceanography. Dr. Zeebe presented a fascinating look at the last time (within the 66 million years of the Cenozoic Era) that carbon levels in the atmosphere were as high as today. He argued, however, that using the Paleocene-Eocene Thermal Maximum (56 Mya) as an analog for today's climatic situation is questionable: the onset of that event proved to be substantially slower, perhaps 10 times slower, than the shift in modern conditions. This suggests that today's global system will have far less time to adapt to the dramatic changes occurring, and that ultimately, we have no good analog for direct predictions of those changes.

A new addition to this year's symposium was a panel discussion, separating the oral and poster sessions. The theme was the "Future of Climate Science", moderated by Jim Potemra, manager of the APDRC. A short presentation was made by Jim and Sharon DeCarlo on managing large data packages, particularly the awaited CMIP6, followed by some tips on why, how, and where to communicating new science by Rachel Lentz. Axel Timmermann followed with a thorough look at what to expect from CMIP6 and the next IPCC report, before the question and discussion session commenced.

Finally, after 30 presentations and many stimulating discussions, the hardworking participants rounded out the day with delicious pupus and drinks, refreshing themselves to plunge back into unraveling the complications of climate science in the 21<sup>st</sup> century.



