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Oceanography Seminar

SPEAKER: Affonso S. Mascarenhas, PhD
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TITLE: Oceanographic conditions, circulation and heat flux at the entrance to the Gulf of California, Mexico
DATE: Wednesday February 14, 2007
TIME: 12:00 PM
PLACE: Spanagel Hall, Rm 316

ABSTRACT:

The Gulf of California (GC) is the only evaporative marginal sea in the Pacific Ocean, and extends over 1500 km, between latitudes 22^{o} N and 32^{o} N, in a NW to SE orientation. Although its evaporation rate, 0.61 m/year, is comparable to that of the Mediterranean and Red Seas, the Gulf differs from these seas because it actually gains heat at an annual rate of 118 W/m^{2}. The temperature and salinity of the gulf do not change due to the exchanges between the gulf and the Pacific Ocean. The dynamical and thermodynamical exchanges take place in Pescadero Basin (PB), which lies at the entrance to the gulf, where depths exceed 2500 m and the distance between landmasses is about 200 km, allowing for free exchange between the waters of the Pacific and the Gulf. A review is made on what is known about circulation and heat flux at the entrance to the gulf. Then a new set of mooring measurements of temperature, salinity and currents is presented and discussed.