

**Title** Prof.

8/31/2007

Permission date

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### Research Fields

- Atmospheric chemistry
- Biogeochemistry
- Carbon Footprint Analysis
- Climatology
- Community & Disaster Planning
- Data Analysis & Statistical Modeling
- Ecology & Ecosystem Management
- Economics
- Energy policy & technology
- Ethics
- Fire
- Forestry & Forest Management
- Geographic Information Systems
- Horticulture
- Human Impacts - economics
- Human Impacts - health
- Human Impacts - policy
- Hydrology
- Impacts - agriculture & horticulture
- Impacts - ecosystems, populations
- Impacts - physical
- Instrumentation
- Mitigation Policy
- Modeling Climate
- Modeling Ecosystems
- Modeling Socioeconomic Processes
- Natural Resource Policy & Planning
- Outreach & Engagement
- Paleoclimatology
- Paleoecology
- Physical Ecology
- Physiological Ecology
- Urban Ecology
- Water Policy & Planning
- Other...  
Physical Oceanography

### Specific Research Interests

Understanding coastal ocean circulation and water properties and their changes over a wide range of space and time scales, including tides, wind-driven upwelling/downwelling, El Niño, and climate change, and the observing systems required to study them. My group operates an array of radiowave measurement systems which produce maps of the time-varying surface currents from northern California through southern Washington.

## Projects

Latitudinal variation of upwelling, nutrient supply and freshwater effects in the California Current System (funded by NOAA; PI)

Changing Ocean Conditions in Northern California Current - Effects on Primary Production and Salmon (funded by NSF; co-PI)

Productivity, Biogeochemical Transformations and Cross-Margin Transport in an Eastern Boundary Buoyant Plume Region (RISE) (funded by NSF, co-PI).

Modeling and Assimilation of Internal Tides in Interaction with Subinertial Wind Forced Flows in the Coastal Ocean (funded by NSF; Co-PI)

Enhancing the Pacific Northwest Regional Coastal Ocean Observing System (RCOOS) of NANOOS (funded by NOAA; Investigator)

Science and Technology Center for Coastal Margin Observation and Prediction (funded by NSF; Investigator).

## Selected Recent Publications

Saraceno, M., P. T. Strub, and P. M. Kosro. Estimates of Sea Surface Height and Near Surface Alongshore Coastal Currents From Combinations of Altimeters and Tide Gauges, submitted to /Journal of Geophysical Research/

Huyer, A, P.A. Wheeler, Strub, P.T., R.L. Smith, R. Letelier, P.M. Kosro, 2006. "The Newport Line off Oregon – studies in the north east Pacific", in press for /Progress in Oceanography/.

Kosro, P.M., W.T. Peterson, B.M. Hickey, R.K. Shearman and S.D. Pierce, 2006. "The physical vs. the biological spring transition: 2005", Geophys. Res. Letters, 33(22), L22S03, doi: 10.1029/2006GL027072.

Huyer, A., J.H. Fleischbein, J. Keister, P.M. Kosro, N. Perlin, R.L. Smith, and P.A. Wheeler, 2005. "Two coastal upwelling domains in the northern California Current System", /Journal of Marine Research/, 63, 901-929.

Kosro, P.M., 2005. "On the spatial structure of coastal circulation off Newport, Oregon, during spring and summer 2001, in a region of varying shelf width", J. Geophys. Res., 110, C10S06, doi:10.1029/2004JC002769.

Kurapov, A.L., J.S. Allen, G.D. Egbert, R.N. Miller, P.M. Kosro, M. Levine, T. Boyd, 2005. "Distant effect of assimilation of moored currents into a model of coastal wind-driven circulation off Oregon". /J. Geophys. Res./, 110, C02022, doi:10.1029/2003JC002195

Swartzman, G., B. Hickey, P.M. Kosro, and C. Wilson, 2005. "Core undercurrent and equatorward surface currents in the Pacific Eastern boundary current in summer 1995 and 1988 and their relationship to the distribution of euphausiids". /Deep-Sea Research II/, 52(1-2): 73-88, doi:10.1016/j.dsr2.2004.09.028.

Paduan, J.D., P.M. Kosro and S.M. Glenn, 2004. "A national coastal ocean high frequency radar system for the United States". /Marine Technology Society Journal/ 38(2): 76-82.

Kosro, P.M., 2003. "Enhanced southward flow over the Oregon shelf in 2002: a conduit for subarctic water", /Geophysical Research Letters/, 30(15), 10.1029/2003GL017436.

Kosro, P.M., 2002. "A poleward jet and an equatorward undercurrent observed off Oregon and northern California during the 1997-98 El Niño", Progress in Oceanography, 54(1-4): 343-360.

## Professional Activities

Executive Committee, Northwest Association of Networked Ocean Observing Systems (NANOOS).  
Scientific Committee for the Environmental Sciences Program, Outer Continental Shelf, Minerals  
Management, U.S. Dept. of Interior.  
Current Measurement Technology Committee, Oceanic Engineering Society, IEEE  
Scientist and Fishermen Exchange