EPOC 2017 Program
Stanford Sierra Center

EPOC President: Eric Bjorkstedt
EPOC Treasurer: Noel Pelland
EPOC 2017 Co-chairs: Thomas Connolly and Andrew Leising

Note: * indicates student presenter

Day 1. Sunday, Sept. 17th

3:00 pm Check in begins at Stanford Sierra Conference Center
        -coffee available in the Stanford Room
        -boating available until 5pm, weather permitting

6:30-8:00 pm Dinner in the Dining room

8:00-9:00 pm Fireside chat in the Cathedral Room
             Mary Silver, Professor Emerita, UC Santa Cruz

9:00-11:00 pm Bonfire reception in front of the Old Lodge

Day 2. Monday, Sept. 18th

7:00-8:20am Breakfast Dining Room

8:30am-12:10pm Meeting Cathedral Room

Session I: Advances and applications of ocean modeling in the eastern Pacific

Co-chairs: Christopher Edwards, Sam Siedlecki, Parker MacCready

8:30 Susan Allen Deep-water Renewal in the Strait of Georgia as an Effective Evaluation for SalishSeaCast

8:50 Faycal Kessouri Role of submesoscale processes on the biogeochemistry of the California Current Ecosystem


9:30 Elizabeth Drenkard Model resolution necessary to study the impact of climate change on fisheries in the California Current System

9:50 Al Herman Bias correction for seasonal dynamical downscaling of the Pacific Northwest

10:10-10:30 Coffee Break Fountain Deck

10:30 Alexander Kurapov The NOAA West Coast Ocean Forecast System: new analyses and data assimilation tests
10:50  Jann Paul Mattern  Joint assimilation of physical and chlorophyll observations into a model of the California Current System

**Session II: General Session**

11:10  Colleen Durkin  Phytoplankton transport to the abyssal seafloor in the California Current observed over 30 years

11:30  Jessica Miller  Seasonal and interannual variation in growth and condition of larval and juvenile northern anchovy (*Engraulis mordax*) in relation to the biochemical and species composition of lower trophic levels

11:50  Nikolay Nezlin  Spatial and Temporal Patterns of Chlorophyll Concentration in the Southern California Bight

12:10-1:30pm **Lunch**  Dining Room

1-4pm  Boating  Boat Dock

1:30-3:30pm  Guided Hike  Fountain Deck

4-6:00pm  Meeting  Cathedral Room

**Session III: The “Blob-to-El Niño” transition: what happened in the CCS?**

*Co-chairs: Andrew Leising, Art Miller*

4:00  Introduction  Leising (chair)


4:23  Katherine Zaba*  Glider Observations and a Numerical Simulation of the 2014 – 2016 Warm Anomalies in the Southern California Current System

4:41  Melanie Fewings  A quasi-dipole structure in the wind forcing over the California Current System helps interpret coastal water temperature anomalies during the marine heat waves of 2014–2016

4:59  Clarissa Anderson  The complex seascape of harmful algal blooms in California before, during, and after the ‘Blob’-to-El Niño transition

5:17  Brian Beckman  Growth and survival of coho salmon in the Northern California Current: the blob and beyond

5:37  Poster introductions  1 min each presenter (listed at end of program)

6-7pm  **Dinner**  Dining Room

8-10pm  Poster Session  Angora Room

8-10pm  Social Hour  Angora Room
Day 3. Tuesday, Sept. 19th

7-8am Yoga Angora Room
7:00-8:20am Breakfast Dining Room
8:30am-12:10pm Meeting Cathedral Room

Session IV: Processes of the continental slope and shelf break
Co-chairs: Tom Connolly, Susan Allen, Matthew Alford

8:30 Richard Dugdale Patterns of nutrient variability in the California Undercurrent
8:50 Kate Hewett” Shelf hypoxia in the Gulf of Farallones and Cordell Bank
9:10 Karina Ramos-Musalem” The combined effect of submarine canyon dynamics and geometry of tracer concentration profiles on the cross-shelf exchange of tracers
9:30 Madeleine Hamann” Multiscale mixing dynamics in a transcritical, shelf-incising west coast canyon
9:50 Marcus Sobarzo On subsurface cooling associated with the Biobio River Canyon (Chile)

10:10-10:30am Coffee Break Fountain Deck

Session V: River and tidal plumes in Eastern Boundary Current Systems: Dynamics, variability, and biogeochemical impacts in the coastal ocean
Co-chairs: Emily Lemagie, Gonzalo Saldias, John Largier

10:30 John Largier Transport Processes and Patterns for Small-Scale Land Runoff: Defining a "Zone of Impact"
10:50 Elise Olson Impact of riverine turbidity on modelled primary productivity within a west coast river plume and its associated region of freshwater influence
11:10 Italo Masotti River discharges and their influence on phytoplankton biomass in coastal areas off central Chile (32°-37°S) during a drought period (2010-2014)
11:30 Gonzalo Saldías” Interannual variability and climate modulation of freshwater turbid river plumes along the Oregon coast
11:50 Jeff Scooler” Intermittent Breaching of the Carmel River, CA

12:10-1:30pm Lunch Dining Room
1-4pm Boating Boat Dock
1:30-3:30pm Guided Hike Fountain Deck
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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tr>
<td>4:00</td>
<td>Nathalie Reyns</td>
<td>Changes in nearshore hydrodynamic conditions, larval concentration,</td>
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<td>and the importance of vertical scales</td>
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<td>4:20</td>
<td>Jesús Pineda</td>
<td>Temporal scales of variability in nearshore larval transport</td>
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<td>4:40</td>
<td>Steven Morgan</td>
<td>Surf zones regulate subsidies of planktonic food and larvae to</td>
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<td>nearshore communities</td>
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<td>5:00</td>
<td>Geno Pawlak</td>
<td>Temporal variability in thermally-driven cross-shore exchange: the</td>
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<td>role of M2 tide</td>
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<td>5:20</td>
<td>Fabian Tapia</td>
<td>Spatial heterogeneity in dominant scales of near-bottom oxygen</td>
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<td>variability in the inner shelf of central Chile</td>
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**Session VI: Multiple scales in nearshore physical and biological processes**  
*Co-chairs: Jesús Pineda, Nathalie Reyns, Nirnimesh Kumar*

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<tr>
<th>Time</th>
<th>Dinner</th>
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<td>6:40-8pm</td>
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<td>8-10pm</td>
<td>Poster Session</td>
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<td>8-11pm</td>
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Day 4. Wednesday, Sept. 20

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>6am</td>
<td>Coffee</td>
<td>Stanford Room</td>
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<td>7-8:30am</td>
<td>Breakfast</td>
<td>Dining Room</td>
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<td>8:50-10:10am</td>
<td>Meeting</td>
<td>Cathedral Room</td>
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Session VII: Multiple scales in nearshore physical and biological processes (continued)

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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tr>
<td>8:50</td>
<td>Robert Cowen</td>
<td>Fine-scale physics and biology in the northern California Current</td>
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<td>9:10</td>
<td>Kristen Davis</td>
<td>Quantifying small-scale environmental gradients in coastal ecosystems</td>
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<td>9:30</td>
<td>Jerome Smith</td>
<td>Variations in Langmuir circulation in response to spatially and temporally inhomogeneous forcing</td>
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<td>9:50</td>
<td>Brett McKim*</td>
<td>Relationship between biological variables and surface water origins in Monterey Bay, CA based on water-trajectory analysis</td>
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<tr>
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<td>10:10-10:30am</td>
<td>Coffee Break</td>
<td>Fountain Deck</td>
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<td>10:30 am</td>
<td>Check Out</td>
<td>Office</td>
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<td>11:00am-12pm</td>
<td>EPOC Business meeting</td>
<td>Angora Room</td>
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<td>12-1pm</td>
<td>Lunch</td>
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Meeting Adjourned
Poster presentations
Monday, September 18th, 8-10pm

Drew Burrier* Internal Wave Dynamics in Barkley Submarine Canyon

Curtis Collins Flow through the Northern Gap in the Santa Rosa to Cortez Bank Ridge

Thomas Connolly Physical and biogeochemical variability at the head of Monterey submarine canyon

Ted Conroy* Seasonal exchange flow in a Pacific Northwest estuary

Patrick Daniel* Examining the contribution of wave-induced transport to nearshore chlorophyll-a variability in Northern California.

Mariana Dorantes Gilardi* A numeric modeling study of biogeochemical variables off Baja California during climatic anomalies

Christopher Edwards Biogeochemical signatures of the recent warm blob and El Niño as obtained using a data assimilative reanalysis of the California Current System

Carlos Lara Effects of coastal biophysical processes on the spatial structure of intertidal communities along the Southeastern Pacific coast

Emily Lemagie* Downwelling wind impacts on a buoyant coastal current from an idealized small discharge river

Maria Jose Marin Jarrín* Shelf-estuary coupling: a case study of the Coos Bay estuary in southern Oregon

Danielle Naiman* Simulating Ocean Acidification in the Bering Sea

Noel Pelland “Seals travel with a fair wind”: The influence of marine winds on the migration of newly-weened northern fur seal pups

Roxanne Robertson Euphausiid size distribution off northern California in response to the marine heatwave of 2014-2016

Aldo Rodríguez Hernández* Satellite-imagery spatio-temporal patterns associated with a Gymnodinium catenatum harmful bloom in the northern Gulf of California in early year 2015

Gonzalo Saldías* Satellite-measured interannual variability of turbid river plumes off central-southern Chile: Spatial patterns and the influence of climate variability

Fabian Tapia Seasonal and synoptic-scale dynamics of a Patagonian river plume - variability in ocean-river balance