



The First Conference on Oceanography in the Bay of Bengal



-In conjunction with
the ASIRI Initiative-

November 28-29, 2012

Hotel Taj Samudra

Colombo, Sri Lanka



Sponsors: Office of Naval Research (USA) and
Office of Naval Research Global (Tokyo)



Organizers: National Aquatic Resources
Research Agency (Sri Lanka) and University of
Notre Dame (USA)

PROGRAM DAY 1 (28th November 2012)

| TIME | TITLE |
|--------------|---|
| 8:00 a.m. | Registration |
| 8:30 a.m. | Arrival of Chief Guest |
| 8:35 a.m. | Lighting of oil lamp |
| 8:40 a.m. | National Anthem |
| 8:45 a.m. | Welcome speech: Dr. S.G. Smarasundara, Chairman, NARA |
| 8:50 a.m. | Keynote address: Dr. Teresa Paluszkievicz, Program Director, Office of Naval Research |
| 9:20 a.m. | Address by the Chief Guest: Hon. Dr. Rajitha Senarathne, Minister of Fisheries and Aquatic Resources Development, Government of Sri Lanka |
| 9:30 a.m. | Vote of thanks |
| 9:35 – 10:20 | Poster session and Ice Breaker |
| 10.20-10.50 | <i>Refreshments</i> |

Session – I

Chairperson: H.J.S. Fernando

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| 10:50 a.m (20 min) | Introduction to Physical Oceanography around Sri Lanka *K. Arulananthan |
| 11:10 a.m. | Path Ways of Bay of Bengal Water and Implications to Oceanography around Sri Lanka *Hemantha Wijesekera, Andrew Quaid, William Teague, Ewa Jarosz, and Tommy Jensen |
| 11:25 a.m. | Skill Assessment of Intra-Seasonal Rainfall Predictions for Sri Lanka *Lareef Zubair and Prabodha Agalawatte |
| 11:40 a.m. | Air-Sea Flux Divergence: Examples of the Role of Subsurface Diapycnal Mixing in Modifying Sea Surface Temperature and Salinity *Jim Moum & Emily Shroyer |
| 11.55 a.m. | Joint US-Sri Lanka Research on Internal Waves and Mixing, with Emphasis on the East Indian Coastal Current off Sri Lanka *Iossif Lozovatsky, *H.J.S. Fernando, S.U.P. Jinadasa and K. Arulananthan |
| 12:10 p.m. | <i>Lunch</i> |

Session – II

Chairperson: Hemantha Wijesekera

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| 13:40 p.m. | Characterization of bio-physical features in Thalawila fishery ground, Northwestern coast of Sri Lanka *H. B. Jayasiri, K. Arulananthan and S. U. P. Jinadasa |
| 13:55 p.m. | Measurement and Modeling of Turbulent Processes in the Southern Bay of Bengal *Louis St. Laurent and Harper Simmons |
| 14:10 p.m. | Transport and Lateral Mixing around the Sri Lanka Dome *Eric A. D'Asaro |
| 14:25 p.m. | Lateral Advection, Vertical Mixing, and the Prediction of the Indian Monsoon *Robert Pinkel |
| 14:40 p.m. | Improving marine mammal predictability through understanding of oceanic processes around Sri Lanka and South India in the southwest Bay of Bengal *Howard Martenstyn |
| 14:55 p.m. | Passive Acoustic Monitoring of Marine Mammals using Seaglider™ *Bogue, N. M., Luby, J. C., Mellinger, D., Klinck, H., Shilling, G. B. |
| 15:10 p.m. | <i>Refreshments and Poster Session</i> |

Session – III

Chairperson: *K. Arulanathan*

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| 15:30 p.m. | Near Surface Circulation off Sri-Lanka from Surface Drifters <i>*Luca R. Centurioni</i> |
| 15:45 p.m. | Air-Sea Interaction Observations from a Drifting Air-Sea Interaction Spar Buoy in the Northern Indian Ocean <i>*Hans C. Graber</i> |
| 16:00 p.m. | Shallow upper-ocean stratification and air-sea interaction in the Bay of Bengal <i>*J. Thomas Farrar and Robert A. Weller</i> |
| 16:15 p.m. | Basin-scale high-resolution modeling of the Bay of Bengal freshwater plume <i>*F. Durand, R. Benshila, S. Masson, R. Bourdalle-Badie, C. de Boyer Montégut, F. Papa1 et G. Madec</i> |
| 16:30 p.m. | Coastal and Open Ocean Sub-mesoscale Process Studies for ASIRI-EBOB <i>*Amit Tandon and Amala Mahadevan</i> |
| 16:45 p.m. | Emerging Sensor Technologies for Science Investigations in the Bay of Bengal <i>*Scott Katz</i> |
| 17:00 p.m. | From the Arabian Sea to the Bay of Bengal: Upper Ocean Response to Monsoon Forcing and Prospects for Autonomous Observing <i>*Craig M. Lee</i> |

POSTER SESSION

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| 1 | Sea grass <i>Thalassia hemperichii</i> as a biofilter for selected heavy metals (Cu, Pb) in coastal environment <i>*T.G.I.P Amaranayaka, H. B. Asanthi and R.G.A. Iroshini</i> |
| 2 | Existing coastal zone vegetation and expected coastal inundation areas in Jaffna district <i>*K. Sobana and A. Nanthakumaran</i> |
| 3 | Dissolved Organic Carbon Dynamics and Microbial Activity in tropical and sub-tropical Coral Reefs <i>*Fairoz M.F.M., Yoshimi Suzuki and Forest Rohwer</i> |
| 4 | Meteorology and Predictability of Tropical Storm ARB-04 in the Equatorial Indian Ocean during November 2011 <i>*Lareef Zubair, Zeenas Yahiya, Prabodha Agalawatte and Dumindu Herath</i> |
| 5 | Occurrence of polycyclic aromatic hydrocarbons (PAHs) in inter-tidal sediment of Mumbai coast, India <i>*H. B. Jayasiri, C. S. Purushothaman, A. Vennila, G. Venkateshwarlu</i> |
| 6 | Relevance of the Ocean wave energy for energy crisis in Sri-Lanka <i>*Tennakoon, T.K.D</i> |
| 7 | Lateral Mixing around Obstacles in Coastal Flows <i>*Karan Venayagamoorthy</i> |
| 8 | History of the internal wave generation in the Bay of Bengal <i>*S.U.P Jinadasa¹, K.P.P Pathirana³, Iossif Lozovatsky², H.J.S. Fernando²</i> |

PROGRAM DAY 2 (29th November 2012)

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| 8:15 a.m. | Overview of Planning Session: Dr. Terri Paluszkiwicz Topics to discuss: (1) Collaborative research questions: outstanding science questions of interest to collaborators; (2) Collaboration structure: what topics; structure of partnership; Sri Lanka needs and sensitivities; (3) Program planning: study area, type of observations (within EEZ and outside) data sharing policy and agreements, training requirements, ports and ships, logistical support. |
| 9:00 a.m. | Discussion Session 1: Topic 1 Leader and Scribe: Dr. St. Laurent and S.U.P. Jinadasa / Simmons |
| 10:30 a.m. | Break-refreshments |
| 11:00 a.m. | Discussion Session 2: Topic 2 Leader and Scribe: Professor Fernando / Katz |
| 12:30 p.m. | <i>Lunch</i> |
| 14:00 p.m. | Discussion Session 3: Topic 3 Leader and Scribe: Dr. Hemantha Wijesekera and Lee / Quaid |
| 15:30 p.m. | <i>Break</i> |
| 15:45 p.m. | Summary of Next Steps and Open Discussion: Dr. Teresa Paluszkiwicz |
| 17:15 p.m. | Conclusion of Meeting |