NATIONAL OCEAN EXPLORATION FORUM | 2017

OCEAN EXPLORATION IN A SEA OF DATA
Ocean Exploration and the Temporal Domain

John Delaney
Exploring Ocean Data Through Audio Spatialization and Sonification
Shahrokh Yadegari, Grady Kestler, and Adrienne Copeland
SpatLab
Being There without Being There” – Interactive, Remote, Fiber-Optic Presence on a Major, Highly Active Mid-Ocean Ridge Volcano – Eruptions, Active Venting, and More...
John Delaney, Timothy Crone, Friedrich Knuth, and Aaron Marburg

Vroom
Visualizing Antarctic Ice Shelf Structure and Bathymetry from the Air
Nick Frearson and Robin Bell
CHEILab
Discussion and Debrief
Tiffany Fox
David McKinnie
Design Lab
Report Out of Day One
Tiffany Fox
Coral Reef Point Clouds and Classification

Stuart Sandin, Falko Kuester, Vid Petrović, and Nicole Pedersen
Visualization and New Understanding
JPL’s OnSight Immersion Environment
Alice Winter
New technologies and data visualizations can enhance efforts to better engage the public about ocean science and exploration by capturing people’s attention and immersing them in the data; helping people visualize, and thus, better understand the complexity, importance, and depth of ocean exploration and reaching wider, more diverse audiences.

Visualization can help accelerate and advance new scientific discoveries by encouraging work across disciplines, challenging the traditional hypothesis-driven workflow of science, allowing extraction of relevant data in more intuitive ways, and promoting onshore research of offshore data.

Provoke Thought – Spark Creativity – Encourage Dialogue
Tackling ‘Ocean Exploration in a Sea of Data’ at the National Ocean Exploration Forum

Ocean explorers from around the world gathered at the UC San Diego Qualcomm Institute last month for a National Ocean Exploration Forum (NOEF) to discuss a challenging problem: how to make sense of the vast quantities of oceanographic data generated by both historic and contemporary studies of the sea.

This fifth annual forum attracted nearly 125 participants, including scholars of data science, ocean exploration and other disciplines who are interested in how data science analysis and visualization techniques can be applied to oceanographic data. The theme of this year’s Forum, “Ocean Exploration in a Sea of Data,” was intended to elicit forward-looking recommendations for how data scientists and ocean explorers can smoothly collaborate to expand traditional concepts of ocean exploration while driving new discoveries, providing greater access to data and engaging more effectively with the public.
**MATCHPOINT**

Are you looking for a data scientist to work with you on your data? Are you a data scientist looking for interesting projects?

If so, you have come to the right place. MATCHPOINT is a matching service provided by the Data Science Hub at SDSC. Its goal is to match Domain experts and students with Methods experts and students to create interdisciplinary working teams that can take on challenging problems in data science and analytics. Learn more about how MATCHPOINT works.

Below you'll find a list of MATCHPOINT past, current and future projects. If you are a data scientist, you can find leads to interesting projects here. If you are a PI with a data science problem, create an entry so that people can find you. To see full project details and expert contact information, and to submit new projects or student applications, you will need to create an account on this site and login.

Displaying 1 - 7 of 7 projects. Click on the column headers to sort.

<table>
<thead>
<tr>
<th>Project</th>
<th>Short Description</th>
<th>Status</th>
<th>Domain Expert</th>
<th>Domain Expert Department</th>
<th>Methods Expert</th>
<th>Methods Student Funding</th>
<th>Methods Student Openings</th>
<th>Participating Students</th>
<th>Last Date Updated</th>
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</thead>
<tbody>
<tr>
<td>Machine learning for ocean sound sources and environment</td>
<td>Using underwater sound pressure from active and passive sources to train machine learning models for various applications.</td>
<td>Active</td>
<td>Emma Ozanich</td>
<td>Scripps Institution of Oceanography</td>
<td>Peter Gerstoft</td>
<td>no</td>
<td>2.00</td>
<td>Create an account or Login to apply</td>
<td>Emma Ozanich</td>
</tr>
</tbody>
</table>
"I went to this meeting as an emissary of our team, and I arrived with pride and confidence. I left with more pride and confidence, as I noted both our tangible strengths in this field as well as the respect and sincere collaboration that we have."

- Stuart
Esri Imagery Education Summit
2017 - Day 2


by/ Dawn Wright  21 days ago  325 Views →
Hey Vid,

Talks and post-talks meetings went very well. I have some NASA Rover guys interested in your methods of visualization as they have 10 years of data quite like mine that they are looking for easy ways to access and search through. Lots of discussions about machine learning as well.

Cheers
Nick
OD24B-2730 Spatial Reconstruction of Ocean Audio Data
Grady Kestler1, Shahrokh Yadegari1, Bob Dziak2 and Adrienne Copeland3, (1)University of California San Diego, La Jolla, CA, United States, (2)NOAA Pacific Marine Environmental Laboratory, Seattle, WA, United States, (3)NOAA Office of Ocean Exploration and Research, United States

IS31A-07 Enabling Virtual Access to Hoyo Negro: A Submerged Late Pleistocene Site in Quintana Roo, Mexico
Vid Petrovic1, Alberto Nava Blank2, Dominique Rissolo1, James C Chatters3, Blaine Schubert4, Roberto Chavez Arce5, Pilar Luna Erreguerena6 and Falko Kuester1, (1)University of California San Diego, La Jolla, CA, United States, (2)Global Underwater Explorers, Seaside, CA, United States, (3)Applied Paleoscience, Bothell, WA, United States, (4)East Tennessee State University, Center of Excellence in Paleontology, Johnson City, TN, United States, (5)Global Underwater Explorers, Mexico, (6)Instituto Nacional de Antropologia e Historia, Mexico City, Mexico

ED14A-2317 Ocean Exploration in a Sea of Data: The 2017 National Ocean Exploration Forum
Dominique Rissolo1, Vicki Lynn Ferrini2, Adrienne Copeland3 and David McKinnie3, (1)University of California San Diego, La Jolla, CA, United States, (2)Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY, United States, (3)NOAA Office of Ocean Exploration and Research, Silver Spring, MD, United States

MG31A-01 Building a Global Ocean Map through International Collaboration – Seabed 2030
Vicki Lynn Ferrini, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY, United States

ED24A-2349 Engaging Citizen Scientists with Ocean Video Lab
John J Morton1, Vicki Lynn Ferrini2 and Nick Pawlenko2, (1)Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY, United States, (2)NOAA Office of Ocean Exploration and Research, RI, United States

EP44B-0892 Can Prey Distribution and Sea Surface Temperature Influence Predator Behavior?
Adrienne Copeland, NOAA Office of Ocean Exploration and Research, Silver Spring, MD, United States and Melanie Hutchinson, Joint Institute for Marine and Atmospheric Research, Honolulu, HI, United States

ED44D-2503 Community Engagement Through Live Telepresence Interactions
Katie Wagner, Adrienne Copeland and David McKinnie, NOAA Office of Ocean Exploration and Research, Silver Spring, MD, United States
Here be Dragons

Monday — Tuesday
February 26, 2018 — February 27, 2018
8:00am — 7:00pm
OCEAN EXPLORATION IN A SEA OF DATA

THANK YOU