# RAD-Lidar Conference 2018 - Final Technical Program

### Day 1 (Monday November 5\(^{th}\) 2018)

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<tr>
<th>Time</th>
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<td>0815-0900</td>
<td>Registration and Breakfast</td>
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| 0900-0915 | Introductions                                                       | Welcome to FAU Harbor Branch (Dr James Sullivan, Executive Director, FAU Harbor Branch)  
Welcome to RAD-Lidar (Dr Fraser Dalgleish, RAD-Lidar Chair, Senior Scientist, Harris Corp.) |
| 0915-1145 | Session 1 - Lidar Techniques for Detection and Quantification of Physical and Biological Parameters In a Marine Environment (0915-1145) | Invited: A Brillouin Lidar for temperature profile measurements in the ocean. David Rupp, Daniel Koestel and Thomas Walther. 45mins  
Coherence Detection Techniques for Improved Transmissometry. Austin Jantzi, William Jemison, Brandon Cochenour and Linda Mullen. 30mins |
| 1030-1045 | Coffee                                                               |                                                                         |
| 1145-1300 | Lunch                                                                |                                                                         |
| 1300-1515 | Session 2 - Lidar Techniques for Measurement and Quantification of Atmospheric Scattering Phenomena (1300-1515) | Invited: Acoustic Detection Using a Range-gated Lidar  
Gabriel Lombardi, David Rodham, and Jerry Butman. 45mins  
Quantification of Lidar multiple scattering from clouds: application to soot and smoke. Romain Ceolato, Lucas Paulien, Matthew J. Berg. 30mins  
Scattering phase function depolarization parameter model and its application to droplets sizing using off-axis lidar measurements at multiple angles. Gilles Roy, Gregoire Tremblay, Robert Bernier and Xiaoying Cao. 30mins  
Description and assessment of cloud-top optical and microphysical parameters derived from combined airborne lidar and polarimeter measurements. Johnathan Hair, Chris Hostetler, Brian Cairns, Mikhail Alexandrov, Yongxiang Hu, Luke Ziemb, Ewan Crobbie, and Richard Moore. 30mins |
| 1515-1530 | Coffee                                                               |                                                                         |
**Simulating the Degree of Polarization Persistence of Scattered Light Through Typical Systems.** Gregoire Tremblay, Gilles Roy. 30mins

Next-generation-synergetic system for cloud microphysics from spaceborne lidar. Hajime Okamoto and Kaori Sato. 30mins.

1700-1715 Discussion

**1830 - late. Rad-Lidar Dinner at Ocean Grill (1050 Beachland Boulevard, Vero Beach, FL 32963)**

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### Day 2 (Tuesday November 6th 2018)

**Breakfast 0830-0900**

**Session 4. Spaceborne Lidar and Ocean Remote Sensing (0900-1115)**


**Measuring near-π Backscattering: Where we left off.** Wayne Slade and Yogi Agrawal. 30mins.

**Physical model for spaceborne active sensors.** Kaori Sato and Hajime Okamoto. 30mins.

**Ocean subsurface study from space-borne CALIOP lidar measurements.** Xiaomei Lu and Yongxiang Hu. 30mins.

**Coffee 1115-1130**

**FAU Harbor Branch Lab tours 1130-1230**

**Lunch 1230-1330**

**Session 5 - Underwater Ranging and Imaging Applications of Lidar (1330-1530)**


**Underwater Single-Photon Depth Imaging.** Aurora Maccarone, Aongus McCarthy, Julian Tachella, Abderrahim Halimi, Yoann Altmann, Stephen McLaughlin, Yvan Petillot, Gerald S. Buller. 30mins.

**Underwater Animal Detection Using Gamma Saliency.** Chi Ding, Bing Ouyang, Fraser Dalgleish, Anni Vuorenkoski, Brian Ramos, Yanjun Li, and José C. Principe. 30mins.

**Multispectral serial laser imaging techniques for underwater spectral discrimination of macroalgae and coral.** Matthieu Huot, Fraser Dalgleish, Anni Vuorenkoski, Eric Rehm, Philippe Archambault and Michel Piché. 30mins.

**1530-1600 coffee, cookies and discussion**

**End**