# AGENDA

**Theme: Benefits and Challenges of Large-Scale Analytics for Society**

**Monday, October 7, 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>7:00 – 8:30 pm</td>
<td>Welcome Reception (Annapolis Atrium)</td>
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</tbody>
</table>

**Tuesday, October 8, 2019**

**General Session location: The Ballroom**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>7:00 – 8:00 am</td>
<td>Breakfast and Registration (Atrium)</td>
<td></td>
</tr>
<tr>
<td>8:00 – 8:30 am</td>
<td>Welcome George Cotter Award for Vision and Leadership in the Field of Data Analytics</td>
<td>Jim Ang, AHSC/PNNL, Candy Culhane</td>
</tr>
<tr>
<td>8:30 – 9:15 am</td>
<td>Keynote: HPC and AI – The Next Horizon - Advancing Humanity’s Grand Challenges</td>
<td>Debra Goldfarb, Intel</td>
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**Session 1: Applications 1**

**Moderator:** TC Tuan

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>9:15 – 10:00 am</td>
<td>DataOps - A New Methodology for Transformational Analytic Outcomes</td>
<td>Harlan Kadish, Tamr</td>
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<tr>
<td>10:00 – 10:15 am</td>
<td>Break (Atrium)</td>
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</tr>
<tr>
<td>10:15 – 11:00 am</td>
<td>Machine Learning of Interatomic Potentials</td>
<td>Justin Smith, LANL</td>
</tr>
<tr>
<td>11:00 – 11:45 am</td>
<td>Robust AI: How to Protect Your Networks - Whether Cyber or Neural</td>
<td>Steven Forsyth, NVIDIA, Ed Raff, BAH</td>
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<tr>
<td>11:45 – 12:30 pm</td>
<td>Panel Discussion</td>
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<tr>
<td>12:30 – 1:45 pm</td>
<td>Lunch (Atrium)</td>
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**Session 2: Applications 2**

**Moderator:** John Feo

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>1:45 – 2:30 pm</td>
<td>Scalable Predictive Analytics for Optimizing Power Network Operations and Maintenance</td>
<td>Nagi Gebraeel, GA Tech</td>
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<tr>
<td>2:30 – 3:15 pm</td>
<td>Modeling Complex Data with Hypergraphs</td>
<td>Emilie Purvine, PNNL</td>
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<tr>
<td>3:15 – 3:30 pm</td>
<td>Break (Atrium)</td>
<td></td>
</tr>
<tr>
<td>3:30 – 4:15 pm</td>
<td>Predicting Behavior in Complex, Interactive Systems</td>
<td>Julie Huff, Northrup Grumman</td>
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<tr>
<td>4:15 – 5:00 pm</td>
<td>Panel Discussion</td>
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<tr>
<td>6:00 – 7:30 pm</td>
<td>Dinner (Atrium)</td>
<td>Sam Visner, NCF/MITRE and Georgetown</td>
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<tr>
<td>7:30 – 9:00 pm</td>
<td>Reception (Mainsail/Spinnaker)</td>
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### Wednesday, October 9, 2019  
General Session location: The Ballroom

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>7:00 – 8:30 am</td>
<td>Breakfast (Atrium)</td>
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<td></td>
<td>Registration (Atrium)</td>
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<tr>
<td>8:30 – 9:15 am</td>
<td>Keynote: Early and Often: Taking AI Ethics Seriously</td>
<td>Dr. Heather Roff, JHU/AP</td>
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<tr>
<td>9:15 – 10:00 am</td>
<td>Software Data Analytics Framework for Detecting Malware and Machine Learning Back Doors</td>
<td>Doug Joseph, ARM</td>
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<tr>
<td>10:00 – 10:15 am</td>
<td>Break (Atrium)</td>
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<tr>
<td>10:15 – 11:00 am</td>
<td>Data Analytics are Powerful – Handle with Care</td>
<td>Jeremy Wendt, SNL</td>
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<td>11:00 – 11:45 am</td>
<td>Data Science Needs Interactive Supercomputing</td>
<td>Bill Reus, DoD</td>
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<tr>
<td>11:45 – 12:30 pm</td>
<td>Panel Discussion</td>
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<tr>
<td>12:30 – 6:00 pm</td>
<td>Free time: Lunch and Dinner (on your own)</td>
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<tr>
<td>6:00 – 7:30 pm</td>
<td>Random Access (The Ballroom)</td>
<td>JT Halbert Moderator</td>
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<td>Sign-up sheet will be at registration table.</td>
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<td>Talks are limited to 8 minutes.</td>
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<tr>
<td>7:30 – 9:00 pm</td>
<td>Reception/Poster Session (Mainsail/Spinnaker)</td>
<td>Students</td>
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<td>Georgetown University Air Quality: A Highly Modular, IoT Air Quality Monitor Incorporating Industry-leading Sensor Technology</td>
<td>Simra Ali, Georgetown University</td>
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<td>Beyond GUAQ</td>
<td>Robert D’Angelo-Cosme, Georgetown University</td>
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<td>Robust Detection of Computer Generated Text</td>
<td>Haydn Jones, New Mexico Institute of Mining and Technology</td>
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<td>Protecting Nodes of Interest from Data Collectors in a Network</td>
<td>Ricky Laishram, Syracuse University</td>
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<td>Advancing the Bases: Tensor Methods and the Frontiers of Generality</td>
<td>Matthew Merris, Boise State University</td>
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<td>Modeling and Assessment of Reliability and Availability for Parallel Systems incorporating Checkpointing and Rejuvenation</td>
<td>Vidya Nagaraju, University of Massachusetts</td>
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<td>7:00 – 8:30 am</td>
<td>Breakfast (Atrium)</td>
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<tr>
<td>8:30 – 9:15 am</td>
<td>Keynote: Development and Use of AI for Army Applications</td>
<td>BG Matthew Easley, US Army</td>
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**Session 4: Hardware**

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<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>9:15 – 10:00 am</td>
<td>xBGAS: Extended Base Global Address Space Architecture for High-Performance Computing</td>
<td>Michel Kinsy, Boston University</td>
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<tr>
<td>10:00 – 10:15 am</td>
<td>Break (Atrium)</td>
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<tr>
<td>10:15 – 11:00 am</td>
<td>Accelerating Large Scale Analytics with Cerebras</td>
<td>Andy Hock, Cerebras</td>
</tr>
<tr>
<td>11:00 – 11:45 pm</td>
<td>AI and the Memory Innovations That Will Be Created as a Result</td>
<td>Steve Pawlowski, Micron</td>
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<tr>
<td>11:45 – 12:30 pm</td>
<td>Panel Discussion</td>
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<tr>
<td>12:30 – 1:45 pm</td>
<td>Lunch (Atrium)</td>
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**Session 5: Policy**

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>1:45 – 2:30 pm</td>
<td>Smart City Data Collection at Scale Has Major Privacy and Policy Challenges</td>
<td>Isaac Potoczny-Jones, Tozny</td>
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<tr>
<td>2:30 – 3:15 pm</td>
<td>Data as the Driver of Biomedical Research: Why aren’t we going faster?</td>
<td>Jack Collins, Frederick National Laboratory</td>
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<tr>
<td>3:15 – 3:30 pm</td>
<td>Break (Atrium)</td>
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<tr>
<td>4:15 – 5:00 pm</td>
<td>Panel Discussion</td>
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<tr>
<td>5:00 – 5:15 pm</td>
<td>Closing Remarks and Adjourn</td>
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