17th Conference on Artificial Intelligence Applications to Environmental Science

The AMS <u>Committee on Artificial Intelligence Applications to Environmental Science</u> held its <u>17th Conference</u> at the AMS Annual meeting in Austin. The conference saw several firsts including its first Distinguished Scientific Committee award presented to Vladimir Krasnopolsky for "Contributions to advancing the application of artificial neural networks to earth science problems and in particular emulations of complex multidimensional mappings". The award was presented by former AI Chair Sue Haupt.

The AI Conference panel tackled the "State of Artificial Intelligence for Environmental Science Applications" and for the first time was broadcast live on YouTube; good timing as the event was standing room only. Overall the AI conference saw record attendance and we will have a bigger room in Phoenix.

Other firsts for AI included two of the annual meeting's <u>Core Science Keynotes</u> in collaboration with STAT and CLIMATE: <u>Machine Learning and Statistics: The Yin and Yang of Data Science</u> by William Hsieh; University of British Colombia, Canada and <u>Deep Learning for Detecting Extreme</u> <u>Weather and Climate Patterns</u> by Bill Collins; University of California, Berkley. Finally the committee started its twitter account ahead of the conference and interacted during the meeting: follow us at @AMS_AIML.

Other sessions included classic machine learning topics related to atmospheric and environmental sciences as well as extreme events, and applications in private sector companies. Joint sessions were organized with STAT, ENERGY, HPC, PYTHON, CLIMATE, HEALTH, COASTAL.

The winners of the AI student competition were (1) Ankur Mahesh, Lawrence Berkeley National Lab (2) David Harrison, CIMMS/ Univ. of Oklahoma/NOAA/NSSL (3) Tzofi Klinghoffer, Univ. of Alabama and honorable mentions (all tied within 0.1) to Chuyen Nguyen, TAMU Corpus Christi, Yu-Ju Lee, NOAA/ESRL/GSD (CIRES) and Xiaopeng Cai, TAMU Corpus Christi. The awardees of our student travel awards were Karthik Mukkavilli, Michael Gallagher and Ankur Mahesh.

We are looking forward to seeing you in Phoenix. We are planning a panel, a joint event with the Probability and Statistics Committee, invited talks, core science keynotes and other joint sessions. A 1-Day short course for Sunday is also in the planning stages in collaboration with PYTHON. Please check for the conference announcement later this spring and you can already suggest session topics at the following link: https://annual.ametsoc.org/2019/.

The AMS AI Committee