

## Spatio-temporal data science: theoretical advances and applications in computational geosciences

### Program:

<p>D2167   EGU2020-16232   <b>Highlight</b> <b>Spatio-temporal decomposition of geophysical signals in North America</b> Aoibheann Brady, Jonathan Rougier, Bramha Dutt Vishwakarma, Yann Ziegler, Richard Westaway, and Jonathan Bamber</p>
<p>D2168   EGU2020-17518 <b>Surface motion information retrieval from dense time series of spaceborne and terrestrial co-registered images</b> Sina Nakhostin, Jeanphilippe Malet, Mathilde Desrues, and David Michea</p>
<p>D2169   EGU2020-15212 <b>Augmenting the sensor network around Helgoland using unsupervised machine learning methods</b> Viktoria Wichert and Holger Brix</p>
<p>D2171   EGU2020-9291 <b>Data driven methods for real time flood, drought and water quality monitoring: applications for Internet of Water</b> Brianna Pagán, Nele Desmet, Piet Seuntjens, Erik Bollen, and Bart Kuijpers</p>
<p>D2172   EGU2020-20339 <b>Analytics Optimized Geoscience Data Store with STARE-based Packaging</b> Kwo-Sen Kuo and Michael Rilee</p>
<p>D2173   EGU2020-12492   <b>Highlight</b> <b>Modeling and Capturing New Phenomena from Very High Cadence Earth Observations</b> Giovanni Marchisio and Rasmus Houborg</p>
<p>D2174   EGU2020-4099 <b>Understanding traffic distribution pattern from the perspective of urban land use</b> Min Zhang</p>
<p>D2175   EGU2020-13040 <b>Negative Effects of Shrinking Cities and the Dilemma of Their Sustainable Development</b> Guolei Zhou</p>
<p>D2176   EGU2020-1153   <b>Highlight</b> <b>Synthetic sampling for spatio-temporal land cover mapping with machine learning and the Google Earth Engine in Andalusia, Spain</b> Laura Bindereif, Tobias Rentschler, Martin Bartelheim, Marta Díaz-Zorita Bonilla, Philipp Gries, Thomas Scholten, and Karsten Schmidt</p>

<p><b>D2177  </b>  <b>EGU2020-16187</b>  <b>Predict urban growth in a low-density context: Basilicata region study case</b>  <b>Lucia Saganeiti, Ahmed Mustafà, Jacques Teller, and Beniamino Murgante</b></p>
<p><b>D2178  </b>  <b>EGU2020-7181</b>  <b>Delimitating functional zones at municipal or county level in China based on a spatial optimization and simulation coupling approach</b>  <b>Dan Li, Jigang Qiao, and Yihan Zhang</b></p>
<p><b>D2179  </b>  <b>EGU2020-18512</b>  <b>Investigating the effects of land use change on ecosystem services: the Basilicata region (Italy) case study</b>  <b>Angela Pilogallo, Lucia Saganeiti, Francesco Scorza, and Beniamino Murgante</b></p>
<p><b>D2180  </b>  <b>EGU2020-2251</b>  <b>A process-oriented approach for mining marine heatwaves with a time series of raster formatted products</b>  <b>Cunjin Xue and Changfeng Jing</b></p>
<p><b>D2181  </b>  <b>EGU2020-6382</b>  <b>Study on spacial-correlation between water pollution and industrial agglomeration in the developed regions of China</b>  <b>Li-hong Shi</b></p>
<p><b>D2182  </b>  <b>EGU2020-13476</b>  <b>Application of nonparametric trend analysis to concentration time series</b>  <b>Artur Kohler</b></p>
<p><b>D2183  </b>  <b>EGU2020-15891</b>  <b>Spatio-temporal variability of global soil salinization delineated by advanced machine learning algorithms</b>  <b>Amirhossein Hassani, Adisa Azapagic, and Nima Shokri</b></p>
<p><b>D2184  </b>  <b>EGU2020-311</b>  <b>Remote Sensing of Surface Soil Moisture from FengYun MicroWave Radiation Imager (MWRI) Data Using a Machine Learning Technique</b>  <b>Sibo Zhang and Wei Yao</b></p>
<p><b>D2185  </b>  <b>EGU2020-13227</b>  <b>crops planting area identification and analysis based on multi-source high resolution remote sensing data</b>  <b>Lei Wang, Haoran Sun, Wenjun Li, and Liang Zhou</b></p>
<p><b>D2186  </b>  <b>EGU2020-138</b>  <b>Comparing a random forest based prediction of winter wheat yield to historical production potential</b>  <b>Yannik Roell, Amélie Beucher, Per Møller, Mette Greve, and Mogens Greve</b></p>
<p><b>D2187  </b>  <b>EGU2020-6276</b></p>

<p><b><a href="#">A combinatorial method for improving hourly precipitation interpolation based on singular value decomposition</a></b>  <b>Sheng Sheng, Hua Chen, Chong-Yu Xu, Wen Zhang, Zhishuai Li, and Shenglian Guo</b>  <b>D2188  </b>  <b>EGU2020-18471</b>  <b><a href="#">Anomaly Detection by STL Decomposition and Extended Isolation Forest on Environmental Univariate Time Series</a></b>  <b>İsmail Sezen, Alper Unal, and Ali Deniz</b></p>
<p><b>D2189  </b>  <b>EGU2020-3822</b>  <b><a href="#">Spatiotemporal distribution of major pollutants and their health impacts in Hubei Province from 2015 to 2018 based on machine learning to improve LUR</a></b>  <b>Xiao Feng</b></p>
<p><b>D2190  </b>  <b>EGU2020-19933</b>  <b><a href="#">Data Fusion on the CANDELA Cloud Platform</a></b>  <b>Wei Yao, Octavian Dumitru, Jose Lorenzo, and Mihai Datcu</b></p>
<p><b>D2191  </b>  <b>EGU2020-10768</b>  <b><a href="#">A Deep-Learning Parallel Processing Agglomerative Algorithm for the Identification of Distinct Seismic Regions in the Southern Hellenic Seismic Arc</a></b>  <b>Alexandra Moshou, Antonios Konstantaras, Emmanouil Markoulakis, Panagiotis Argyrakis, and Emmanouil Maravelakis</b></p>
<p><b>D2192  </b>  <b>EGU2020-6771</b>  <b><a href="#">Analysis and Construction of Geodetic Data Classification Standard</a></b>  <b>Yongshang Wang</b></p>
<p><b>D2193  </b>  <b>EGU2020-21208</b>  <b><a href="#">Long-term trends in ocean chlorophyll: update from a Bayesian hierarchical space-time model</a></b>  <b>Claudie Beaulieu, Matthew Hammond, Stephanie Henson, and Sujit Sahu</b></p>
<p><b>D2194  </b>  <b>EGU2020-9186</b>  <b>  <a href="#">Highlight</a></b>  <b><a href="#">Spatio-Temporal Modeling of Wind Speed Using EOF and Machine Learning</a></b>  <b>Fabian Guignard, Federico Amato, Sylvain Robert, and Mikhail Kanevski</b></p>
<p><b>D2195  </b>  <b>EGU2020-9206</b>  <b>  <a href="#">Highlight</a></b>  <b><a href="#">Spatio-temporal global patterns of 70 years of daily temperature using Fisher-Shannon complexity measures</a></b>  <b>Federico Amato, Fabian Guignard, and Mikhail Kanevski</b></p>