### Department of Energy Announces $4 Million for Research on Artificial Intelligence for High Energy Physics

#### Announcement Number: DE-FOA-0002705
**List Posted:** 11/29/2022

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Title</th>
<th>Institution</th>
<th>City</th>
<th>State</th>
<th>9-digit zip code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beauchemin, Pierre-Hugues</td>
<td>Improving unfolding and systematic uncertainty estimation using generative diffusion networks</td>
<td>Tufts University</td>
<td>Boston</td>
<td>MA</td>
<td>02111-1817</td>
</tr>
<tr>
<td>Caratelli, David</td>
<td>Advancing Artificial Intelligence with Liquid Argon Neutrino Experiments</td>
<td>University of California, Santa Barbara</td>
<td>Santa Barbara</td>
<td>CA</td>
<td>93106-2050</td>
</tr>
<tr>
<td>Eifler, Tim</td>
<td>Accelerating cosmological inference for LSST and DESI with neural networks</td>
<td>University of Arizona</td>
<td>Tuscon</td>
<td>AZ</td>
<td>85721-0158</td>
</tr>
<tr>
<td>Hao, Yue</td>
<td>Artificial Intelligence Application in Nonlinear Beam Dynamics Study for Future HEP Accelerators</td>
<td>Michigan State University</td>
<td>East Lansing</td>
<td>MI</td>
<td>48824-0000</td>
</tr>
<tr>
<td>Higuera Pichardo, Aaron</td>
<td>Uncertainty Quantification Using Bayes Networks on Neutrino Experiments</td>
<td>Rice University</td>
<td>Houston</td>
<td>TX</td>
<td>77005-1827</td>
</tr>
<tr>
<td>Jung, Andreas</td>
<td>AI for a more precise future of the top quark</td>
<td>Purdue University</td>
<td>West Lafayette</td>
<td>IN</td>
<td>47906-1332</td>
</tr>
<tr>
<td>Kahn, Yonatan</td>
<td>Uncertainty Quantification from Neural Network Correlation Functions</td>
<td>University of Illinois</td>
<td>Champaign</td>
<td>IL</td>
<td>61820-7406</td>
</tr>
<tr>
<td>Martinez Outschoorn, Verena</td>
<td>New FPGA-Based NN Architectures and Autonomous Learning in Trigger Systems</td>
<td>University of Massachusetts</td>
<td>Amherst</td>
<td>MA</td>
<td>01035-9450</td>
</tr>
<tr>
<td>Okada, Nobuchika</td>
<td>Deep Learning Methods for Symbolic Calculations in HEP</td>
<td>University of Alabama</td>
<td>Tuscaloosa</td>
<td>AL</td>
<td>35487-0104</td>
</tr>
<tr>
<td>Regier, Jeffrey</td>
<td>Deep Generative Models for Transforming Pixels to Catalogs in Cosmology Analyses</td>
<td>University of Michigan</td>
<td>Ann Arbor</td>
<td>MI</td>
<td>48109-1274</td>
</tr>
<tr>
<td>Roberts, Amy</td>
<td>Using Generalized Adversarial Networks to ensure trusted science results and maximize science reach within the dark matter community</td>
<td>University of Colorado-Denver</td>
<td>Aurora</td>
<td>CO</td>
<td>80045-2570</td>
</tr>
<tr>
<td>Shiu, Gary</td>
<td>String Theory for AI</td>
<td>University of Wisconsin-Madison</td>
<td>Madison</td>
<td>WI</td>
<td>53715-1218</td>
</tr>
<tr>
<td>Strobbe, Nadja</td>
<td>Robustness of Machine Learning Algorithms for HEP Event Reconstruction</td>
<td>University of Minnesota</td>
<td>Minneapolis</td>
<td>MN</td>
<td>55455-2070</td>
</tr>
<tr>
<td>Trivedi, Amit</td>
<td>Pixel-Integrated Neural Processing for Extreme Precision Readout of Collision Events</td>
<td>University of Illinois</td>
<td>Chicago</td>
<td>IL</td>
<td>60612-4305</td>
</tr>
<tr>
<td>Wang, Haichen</td>
<td>Using Generative Machine Learning to Improve Performance and Physics Modeling at HEP Experiments</td>
<td>University of California, Berkeley</td>
<td>Berkeley</td>
<td>CA</td>
<td>94710-1749</td>
</tr>
<tr>
<td>Whiteson, Daniel</td>
<td>Blue Sky: AI-powered exploration of high-dimension theories to reveal overlooked paths to discovery</td>
<td>University of California, Irvine</td>
<td>Irvine</td>
<td>CA</td>
<td>92697-4575</td>
</tr>
</tbody>
</table>