

ICEPP Joint Research Program in FY2022

Research Project Title	Representative and Project Organization
Studies of Micro-Megas detector for the ATLAS muon system upgrade	Atsushi Ochi (Kobe University) and 4 researchers (Kobe University, ICEPP)
Studies on the control system of large-scale electronics using a System-On-a-Chip (SoC) towards the High-Luminosity LHC era	Masaya Ishino (ICEPP) and 6 researchers (Nagoya University, KEK, ICEPP)
Search for electroweak SUSY in degenerate mass region with the ATLAS detector at the Large Hadron Collider	Toshi Sumida (Kyoto University) and 7 researchers (Kyoto University, ICEPP)
Search for Axion-like particle with forward-proton detector at the ATLAS experiment	Junichi Tanaka (ICEPP) and 3 researchers (Czech Technical University in Prague, ICEPP)
Exploring the performance improvement of the muon trigger system for the LHC Run-3	Junpei Maeda (Kobe University) and 11 researchers (KEK, Kobe University, Kyoto University, ICEPP)
Establishment of research facility for remote collaboration for LHC-ATLAS muon trigger development	Yasuyuki Okumura (ICEPP) and 9 researchers (KEK, ICEPP, Kobe University, Nagoya University, Kyoto University)
Studies for extension of the grid computing system towards High-Luminosity LHC program	Tomoaki Nakamura (KEK) and 6 researchers (KEK, ICEPP)
Search for new physics in the electroweak sector through the vector-boson generation processes with the ATLAS experiment at the Large-Hadron-Collider	Takanori Kono (Ochanomizu University) and 6 researchers (Kyoto University, Waseda University, ICEPP, Ochanomizu University)
Research on quantum computers for application to High Energy Physics	Kohei Yorita (Waseda University) and 7 researchers (Waseda University, ICEPP)
R&D for new data-processing and data-analysis system using machine learning	Masako Iwasaki (Osaka Metropolitan University) and 6 researchers (Osaka Metropolitan University, ICEPP)
Research on the background and sensitivity of the MEG experiment	Wataru Ootani (ICEPP) and 10 researchers (KEK, Kyushu University, INFN-Pisa, INFN-Rome, ICEPP)
Studies to improve the performance of the Liquid Xenon detector for the MEG experiment	Satoshi Mihara (KEK) and 5 researchers (ICEPP, Kyushu University, University of California, Irvine)
Experimental studies for long-term operation of the cryogenic and purification system for the liquid Xenon detector of the MEG experiment	Yasuhiro Makita (KEK) and 8 researchers (ICEPP, KEK, PSI/University of Pisa)
Studies to improve the performance of the electron spectrometer for the MEG experiment	Hajime Nishiguchi (KEK) and 6 researchers (KEK, ICEPP, INFN-Rome)
R&D for next generation $\mu \rightarrow e \gamma$ search experiment	Wataru Ootani (ICEPP) and 9 researchers (Kobe University, KEK, PSI, INFN-Rome, ICEPP)
Studies of the electro-symmetry breaking mechanism in the ILC experiment	Daniel Jeans (KEK) and 5 researchers (KEK, ICEPP, Kyushu University, Nippon Dental University)
Development of the fine-grained electro-magnetic calorimeter for the ILC experiment	Taikan Suehara (Kyushu University) and 5 researchers (Kyushu University, ICEPP, KEK)
Development of the fine-grained electro-magnetic calorimeter for the ILC experiment	Tohru Takeshita (Shinshu University) and 4 researchers (ICEPP, Kyushu University)