**Current and Pending Sources of Funding**

**Morten Hjorth-Jensen**

**Current Support**

Sponsor: National Science Foundation

Title: Ab-Initio Nuclear Theory: From Nuclei to Neutron Stars

Award/Identifying Number: PHY-1713901

Total Costs: $661,057

Award Period: 8/1/17 – 7/31/20

Person-Months of effort: 2 summer

Location of Project: Michigan State University

Brief description: Development of many-body theories with an emphasis on applications to the nuclear many-body problem.

Overlap: None

Sponsor: DIKU, Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education

Title: Center for Computing in Science Education

Award/Identifying Number: Center of Excellence in Education program

Total Costs: $50 MNOK

Award Period: 2016 - 2025

Person-Months of effort: 0.12 summer

Location of Project: University of Oslo

Brief description: Norwegian center of excellence in education

Overlap: None

Sponsor: Research Council of Norway

Title: International Partnership grant number 288125

Award/Identifying Number: 288125

Total Costs: $4.5MNOK

Award Period: 2019-2022

Person-Months of effort: 0.12 summer

Location of Project: University of Oslo

Brief description: International partnership between Michigan State University, University of Oslo, Norway, University of Colorado, Boulder and Oregon State University. The aim is to develop quantitative research on Computing in Science Education

Overlap: None

**Pending Support**

Sponsor: Department of Energy

Title: Title of MSU QIS Proposal

Total Costs: $XX,XXX,XXX

Award Period: 10/1/20 – 9/30/25

Person-Months of effort: 0.12 summer

Location of Project: Michigan State University

Brief description:

Overlap: None, this is the proposed project.

Sponsor: National Science Foundation

Title: Quantum Many-Body Theories and Methods for Nuclear Physics

Total Costs: $990,926

Award Period: 8/1/20 – 7/31/23

Person-Months of effort: 2 summer

Location of Project: Michigan State University

Brief description: Development of many-body theories with an emphasis on applications to the nuclear many-body problem.

Overlap: None

Sponsor: Department of Energy (DOE)

Title: From Quarks to Stars; A Quantum Computing Approach to Nuclear Physics

Total costs: $1,000,000

Award period: 10/1/19 – 9/30/22

Person-months of effort: 0.12 summer

Location of Project: Michigan State University

Brief description: This proposal aims at studying and applying recent developments of algorithms and methods from quantum computing and quantum information theory to studies of complex and strongly interacting nuclear many-particle systems. The proposal aims at developing new methods for studying systems that span from strong force simulations of quarks and gluons to many-body methods applied to the equation of state of dense matter. The proposal aims at developing interdisciplinary research projects that unites researchers in quantum computing and quantum

Overlap: None

Sponsor: National Science Foundation (NSF)

Title: QLCI – CI: Institute for Quantum Computing and Control (IQC2) at MSU

Total costs: $25,000,000

Award period: 8/1/20 – 7/31/25

Person-months of effort: 0.12 summer

Location of Project: Michigan State University

Brief description: Large NSF center application on quantum information technologies at Michigan State university only. It combines theoretical developments with experimental developments.

Overlap: None

Sponsor: National Science Foundation (NSF)

Title: AI Institute: Transdisciplinary Institute for Physics-Informed Machine Learning

Total costs: $25,000,000

Award period: 8/1/20 – 7/31/25

Person-months of effort: 0.12 summer

Location of Project: Michigan State University

Brief description: NSF center application on Artificial intelligence and machine learning, with the aim to develop novel algorithms for physics discovery.

Overlap: None