MEMORANDUM OF UNDERSTANDING BETWEEN

CHIANG MAI UNIVERSITY, THAILAND AND

CHULALONGKORN UNIVERSITY, THAILAND

AND

THE NATIONAL ASTRONOMICAL RESEARCH INSTITUTE OF THAILAND (PUBLIC ORGANIZATION)

AND

THE PANYAPIWAT INSTITUTE OF MANAGEMENT, THAILAND

THE UNIVERSITY OF WISCONSIN-MADISON, USA

This Memorandum of Understanding (hereinafter referred to as the "MOU") is made on this 22 of June, 2024, by and among the University of Wisconsin–Madison (hereinafter referred to as "UW"), Chiang Mai University, Chulalongkorn University, The National Astronomical Research Institute of Thailand (Public Organization), and the Panyapiwat Institute of Management (collectively referred to as the "Parties" and individually as the "Party");

Whereas the collaboration between UW and Thai-IceCube ("Thai-IceCube" or "Thai-IceCube Collaboration" is the collaboration involving 4 institutions, namely: Chiang Mai University, Chulalongkorn University, the National Astronomical Research Institute of Thailand (Public Organization), and the Panyapiwat Institute of Management) derived from the visionary initiative of HRH Princess Maha Chakri Sirindhorn to foster Thailand's collaboration with global institutes for scientific research in polar regions;

And whereas this strategic endeavor laid the foundation for a close collaboration between Thai-IceCube and UW, facilitated by Wisconsin IceCube Particle Astrophysics Center (WIPAC), for the advancement of the IceCube Neutrino Observatory and IceCube Collaboration;

And whereas these collaborative efforts underscore a steadfast dedication to advancing international cooperation in science, technology and education between all institutes;

Now therefore be is resolved that to promote cooperation between the Parties, and desiring to expand scholarly ties, facilitate academic cooperation and promote mutual understanding, the Parties agree to explore the feasibility of establishing a framework for educational and scientific cooperation.

In preparation for establishing a formal framework for future activities, the Parties will:

- Consult faculty, departments, and centers to explore potential mutually beneficial research, applied research, and community-based research projects;
- Encourage units to explore the feasibility of activities such as student exchanges and faculty exchanges for research, lectures, and discussions that mutually benefit all institutions; and
- Investigate outside funding sources for projects determined to be mutually beneficial to all institutions.

If the Parties agree to pursue such arrangements, visits, and other forms of cooperation will be developed for each specific case. Any commitment of resources, financial or otherwise, must be made in specific agreements to be entered into for this purpose at a subsequent date.

This MOU does not constitute a joint venture, partnership, collaboration, or any other form of business arrangement or organization. Each party agrees not to use the name, trademarks or logos of the other party or the name of the other party's employees, officers, board members or agents in any way including but not limited to, in sales promotion, advertising materials, applications or proposals without that party's prior express written agreement.

This MOU expresses the basic understanding and present intentions of the Parties but does not attempt to either specify or otherwise limit the collaborative efforts between the Parties. It merely serves as evidence of the Parties' good faith intentions with regard to the activities. Except as otherwise set forth in this MOU, the MOU does not obligate any party to enter into any other agreement, collaborative relationship, or any proposal effort.

The Parties agree to consult periodically concerning the status of these explorations and other relevant matters. This memorandum will be in effect for a period of three years upon signature of the Parties.

And being agreed, the Parties hereby sign this MOU on this 22 of June, 2024.

Thai-IceCube Collaboration:

Chiang Mai University:

Prof. Pongruk Sribanditmongkol, M.D., Ph.I.

President

Chulalongkorn University:

Prof. Wilert Puriwat, D.Phil.

Acting President

National Astronomical Research Institute of Thailand: (Public Organization)

Josep Parkyahar

Saran Poshyachinda, Ph.D.

Executive Director

Panyapiwat Institute of Management:

Assoc. Prof. Sompop Manarungsan, Ph.D.

President/Director

Witnessed by:

Prof. Pairash Thajchayapong, Ph.D.

P. Thajchayap P

Secretary General

The Information Technology Foundation

under the Initiative of H.R.H. Princess Maha Chakri Sirindhorn

University of Wisconsin-Madison:

Prof. Jennifer Mnookin, Ph.D.

Chancellor

Witnessed by:

Prof. Albrecht Karle, Ph.D.

Associate Director, WIPAC