Speech by Professor Professor Tan Chorh Chuan, NUS President

Professor Roger Howe, Chairman, IMS Scientific Advisory Board
Professor Chong Chi Tat, Chairman, IMS Management Board
Professor Louis Chen, Director, IMS
Distinguished guests
Ladies and Gentlemen

Good morning.

We at NUS have much to celebrate as our Institute for Mathematical Sciences (IMS) marks its 10th anniversary today. My warmest congratulations to the IMS team lead by Director Professor Louis Chen, Management Board Chair Professor Chong Chi Tat and Scientific Advisory Board Chair Professor Roger Howe, on reaching this key milestone!

The value of mathematics to society

Mathematics is the foundational discipline that underpins a wide range of disciplines, from physical and biological science, to engineering, to finance. This is beautifully captured in the title of a 1960 article by the Physics Nobel laureate Eugene Wigner called: "The Unreasonable Effectiveness of Mathematics in the Natural Sciences". The paper expounds the remarkable role that mathematical structure and concepts have in predicting and advancing physical theory. It is true that important research in mathematics is often motivated by finding solutions to real and practical problems that are multi-dimensional in nature. Equally important is fundamental curiosity-driven research in some of the more abstract and pure areas of mathematics, which sometimes leads to surprising and important applications to practical problems.

These observations are of even greater relevance in the current global landscape, where a growing number of countries are transforming themselves into knowledge-based economies and societies. For them, research, development and innovation - particularly in science and technology - are key drivers for positive change. It is not surprising that mathematics has an even more crucial role for such countries seeking to thrive in a new, globalised and diversified economy.

IMS' achievements in the last 10 years

Turning to Singapore - we are at an exciting phase of growth, transiting from an efficiency-focused, manufacturing-based economy to one which is also powered by knowledge and innovation. In this regard, NUS has a critical role to play, as a key driver of knowledge creation, transmission and application. The quality and impact of our research are on a steeply rising trajectory, and there are several areas where we are doing high impact work in the global arena. IMS, set up in the year 2000, is a key part of our plans to put NUS on the world map for mathematics education and research. Let me highlight a few of IMS' notable accomplishments.

First, harnessing synergies within NUS departments, IMS has developed innovative programmes that are broad-based and interdisciplinary, covering a wide range of mathematical fields, including mathematical applications in finance, biology, modelling of infectious diseases, climate change, imaging and digital media, and data analysis. These programmes, including activities such as summer schools, workshops, symposia and conferences, demonstrate both the breadth of IMS' activities, as well as the ubiquity and relevance of mathematics across a range of disciplines.

Second, IMS has attracted a pool of talented scholars and researchers, offering them opportunities to pursue exciting ground-breaking work. Augmenting our local researchers and academics are leading world experts - including Nobel laureates, Fields medallists and members of the Academies of Sciences - as well as promising young scientists, who are

regular visitors at IMS. It is a highly encouraging sign of success that IMS is fast becoming a magnet for talent and has built up a critical mass of top-rate scholars.

Third, IMS is actively building up synergistic partnerships with renowned institutions in the US, Japan and Canada, including the US National Science Foundation. In this regard, I am delighted to share that the IMS team - comprising Professor Chong Chi Tat and Professors Hugh Woodin and Ted Slaman - successfully secured a US$1million grant from the John Templeton Foundation, to support the Asian Initiative for Infinity, a programme that promotes the research of Mathematical Logic in Asia. Through such partnerships and collaborations, IMS has been able to build synergies, enhance its research impact and grow the critical mass of top-class talent in Mathematical Sciences for Singapore and beyond.

Closing

Let me now close by expressing, on behalf of the University, our heartfelt appreciation to all our researchers and scholars at IMS for your many and substantial achievements. I applaud the contributions of each one of you in making IMS what it is today. As IMS blazes new trails, I am confident that it will continue to be one of the pace setters for innovative education and cutting edge research in mathematical sciences.

Thank you, and please have an enjoyable conference.