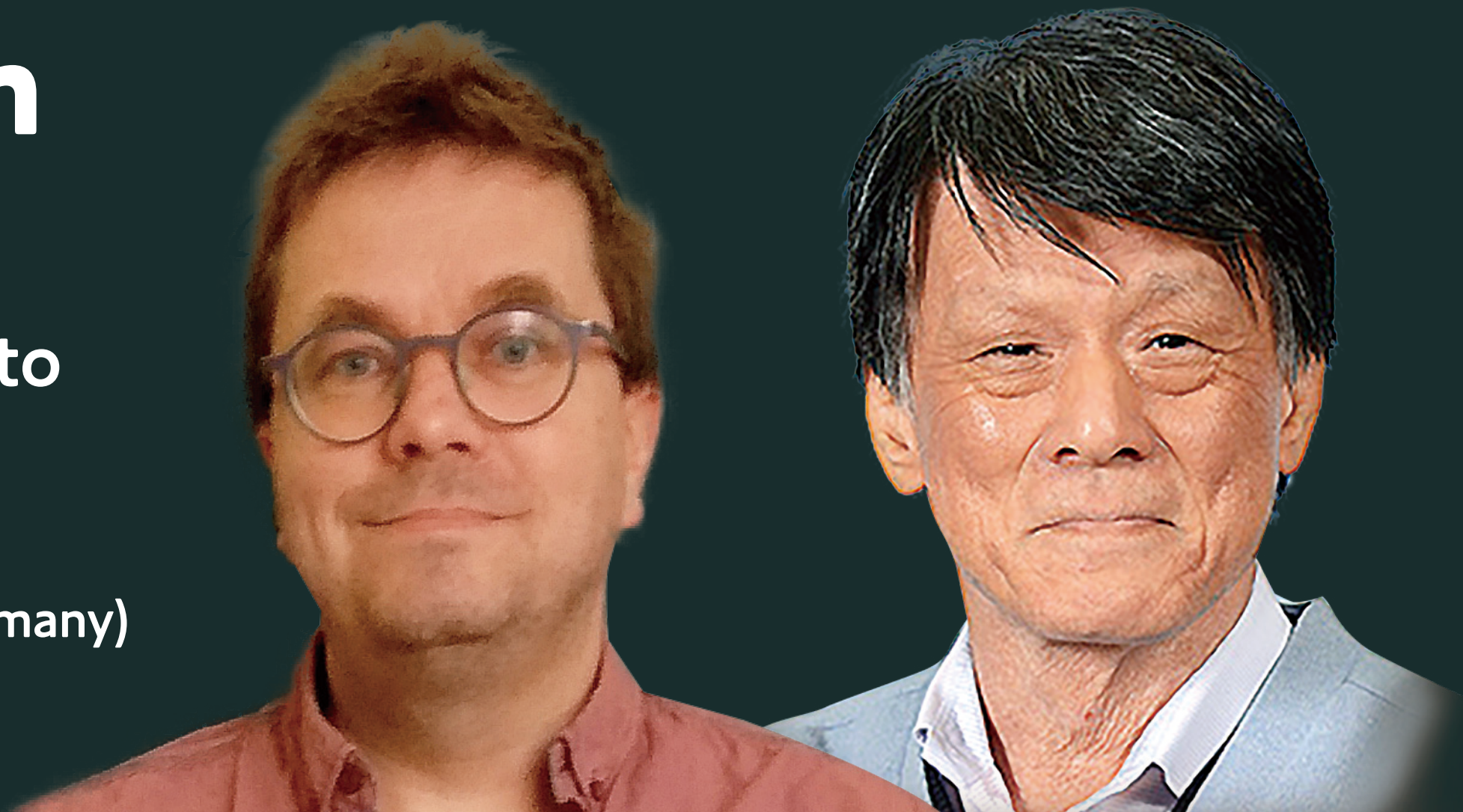# ZetaValue2019-iTHEMS Special Mathematics Colloquium

Prof. Kohji Matsumoto
(Nagoya University)

Prof. Jörn Steuding
(University of Würzburg, Germany)

2019 3/21 14:00 – 17:30   Okochi Hall, RIKEN Wako Campus

This colloquium is a part of the conference "Value distribution of zeta and L-functions and related topics" to be held from March 21 to 27, 2019. This colloquium is aimed at scientists in general and we welcome everyone to attend. Details of the conference can be found in **https://sites.google.com/view/zetawako2019**

An overview of the theory of multiple zeta-functions
Prof. Kohji Matsumoto (Nagoya University)
Multiple zeta-functions are generalizations of the Riemann zeta-function, and its theory has been rapidly developed in these decades. It is connected with various fields of mathematics and mathematical physics. In this talk I will give an overview of some part of recent developments, mainly from the analytic viewpoint.

On the Infinite in Number Theory
Prof. Jörn Steuding (University of Würzburg, Germany)
Beginning with two simple examples from elementary number theory (one of diophantine origin and one of arithmetical nature), we discuss the role of "infinity" in number theory. We touch upon topics like how to find good rational approximations to irrational quantities and the distribution of prime numbers. We conclude with a motivation of the big open question in this field, namely, the Riemann hypothesis (one of the six unsolved millennium problems) and the Langlands program.