# Extreme Universe The 7th COLLOQUIUM June 8<sup>th</sup> (Wed.) ONLINE

#### TALK 14:00 - 15:00 (JST)

June 8<sup>th</sup> (Wed.) 5:00 am - 6:00 am (UTC) June 8<sup>th</sup> (Wed.) 10:30 am - 11:30 am (IST)

#### ONLINE COFFEE TIME 15:00 - 16:00 (JST)

Q

Registration required (click HERE)

Extreme Universe, JAPAN

### Speaker <mark>Prof. Sandip P. Trivedi</mark>

Tata Institute of Fundamental Research



Title

## Entanglement in Matrices, Gauge Theories and Spacetime



#### Abstract

Entanglement Entropy is an important measure of the quantum correlations in a system. It is playing an increasingly important role in shaping our understanding of Condensed Matter physics and Quantum Gravity. The talk will discuss how to define entanglement entropy in Gauge Theories, which are important in a wide variety of settings in physics, and in quantum systems involving Matrices, which can arise in the study of Holography and Condensed Matter physics.

MEXT -KAKENHI- Grant-in-Aid for Transformative Research Areas (A) The Natural Laws of Extreme Universe -A New Paradigm for Spacetime and Matter from Quantum Information-