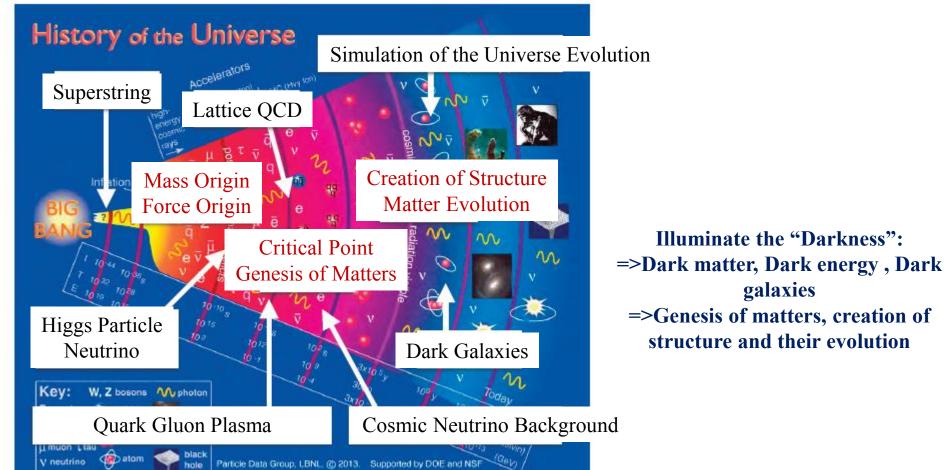
Research Core for the History of the Universe

筑波大学 University of Tsukuba

under Center for integrated Research in Fundamental Science and Engineering, University of Tsukuba (founded on Sep. 1, 2014)



Mission: coordinate the studies in elementary particles, quark nuclear matters and astrophysics to construct an integrated view of the History of the Universe.



Consortiums in Research Core for the History of the Universe

Two consortiums in Research Core for the History of the Universe develop the studies on the History of the Universe under the following international collaboration.

Consortium of the History of the Universe

Research Core for the History of the Universe put forward the study on the History of the Universe based on the international consortium "Consortium of the History of the Universe".

Seoul National University Prof.S.B.Kim Neutrino: STJ detector

University of Fukui Prof. T. Yoshida Neutrino: FIR photon source

Kansai Gakuin University Prof. S. Matsuura Neutrino: Cryostat, Optical system

Kindai University Prof. Y. Kato Neutrino: Data Acquisition

Okavama University Prof. H. Ishino Neutrino: STJ detector

> AIST Prof. M. Ohkubo Neutrino: STJ detector

Fermi National Accelerator Laboratory E. Ramberg

Y. Schutz (IN2P3/CERN) Higgs, QGP: Neutrino: Electronics LHC Accelerator

CERN

University of Tsukuba Prof. S.H. Kim. Prof. F. Ukegawa. Prof. S. Esumi, Prof. A. Ozawa Higgs: Silicon Tracker QGP: Calorimeter

Neutrino: STJ detector: Electronics. Cryostat Unstable Nucleus

JAXA/ISAS Assis. Prof. T. Wada Neutrino: Rocket. Cryostat, Electronics.

KFK Porf Y Arai Neutrino: Electronics Higgs: Silicon Tracker RIKEN Group Leader Y. Akiba QGP: Silicon Tracker Neutrino: STJ detector Unstable Nucleus: RIBF

Brookhaven National

Laboratory

David Morrison

QGP: Calorimeter.

Muon detector

GSI C. Scheidenberger

Unstable Nucleus

University of Tokyo

Prof. H. Hamagaki

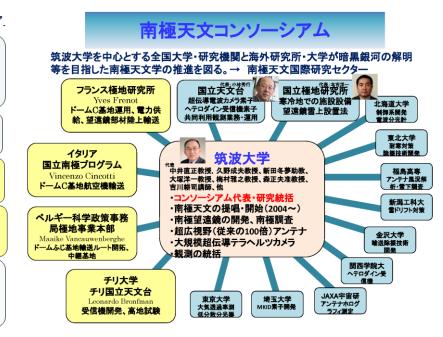
QGP:GEM-TPC

Hiroshima University

Prof. T. Sugidate

QGP: Calorimeter

Consortium of the Antarctic Astronomy



http://hep.px.tsukuba.ac.jp/CiRfSE/RCHOU/eng/hou.html

数理物質融合科学センター



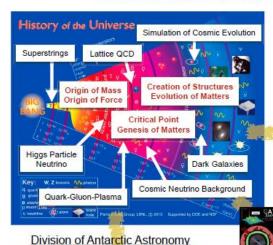


筑波大学 University of Tsukuba

Center for Integrated Research in Fundamental Science and Engineering, University of Tsukuba

宇宙史国際研究拠点

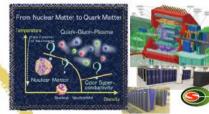
Research Core for the History of the Universe



Mission: Coordinate the studies in the elementary particles, quark nuclear matters, and the astrophysics to construct an integrated view of the History of the Universe.

Coordinator: Prof. Shinhong Kim

Division of Quark Nuclear Matters



Principal Investigator: Asso.Prof. Shinichi Esumi

Clarification of the nature of the high-temperature quarkgluon-plasma state several µ seconds after the Big Bang as well as the high-density nuclear matter in the core of neutron stars. Identification of the critical point expected at intermediate temperature and density.

Principal Investigator: Prof. Fumihiko Ukegawa

Division of Elementary
Particles

Through experimental study of Higgs particle and neutrinos together with theoretical study of superstrings, understand the fundamental structure of particles and clarify the History of the Universe.

Principal Investigator: Prof. Naomasa Nakai

[Antarctic Observatory of Astronomy]

Clarification of the formation and evolution of the first galaxies and the Universe through deep space observation by the Antarctic Telescope and other Observatories.

"Consortium of Antarctic Astronomy"

"Consortium of the History of the Universe"

Illuminate the "Darkness":

=> Dark Matter, Dark Energy, Dark Galaxies, ...

=> Genesis of matters, creation of structures, and their evolution.

Development of data analysis methods in collaboration with Lab. for Inverse Problems