

Proposal for Hadron2025@Osaka, Japan

Cochairs: Takashi Nakano, Atsushi Hosaka

Hosted by: RCNP, Osaka University

Supported by: Kyoto, Tokyo, Tokyo Metropolitan, Nara, Tohoku, RIKEN, KEK, JAEA, and more

Date: March 2025

Location: Osaka downtown (Nakanoshima) or Osaka U. Campus

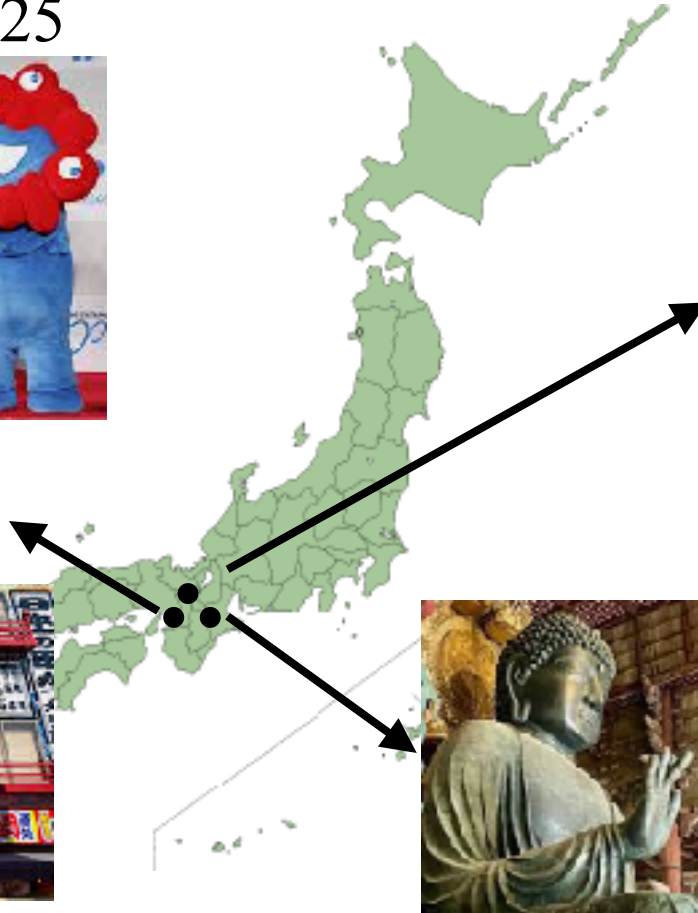
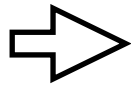
We (Osaka group) have good experiences of this size of conferences: PANIC2001, Baryons2010, Hadrons2013, NSTAR2015, ... and almost every year before Corona conferences of ~ 100 people

Osaka and neighborhoods

Expo1970



2025



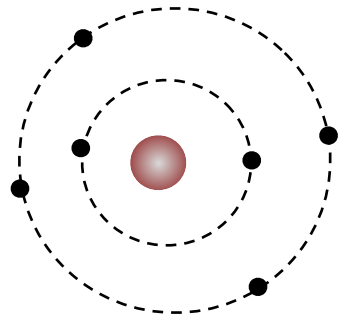
Kyoto



Nara



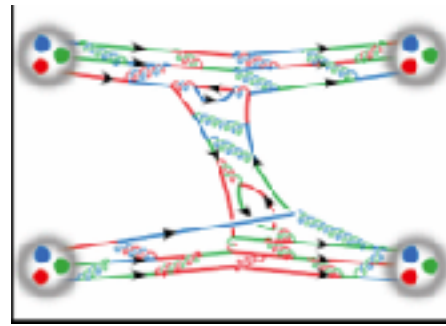
Why in Osaka



Saturn model

Nagaoka, Hantaro
長岡 半太郎(1865-1950)

First president of OU



Nuclear force by π meson

YUKAWA, Hideki
湯川 秀樹(1907-1981)

Nobel prize in 1949
done at Osaka

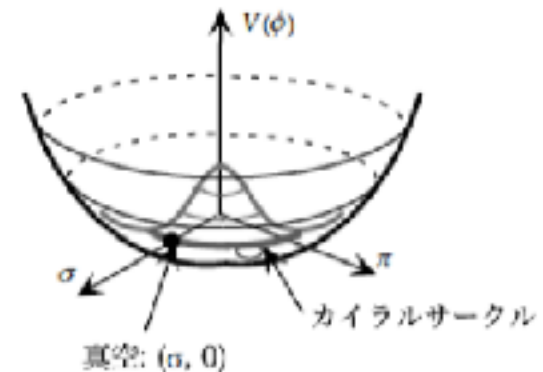
$$\frac{e^{-x}}{x}$$

Yukawa function



NAMBU, Yoichiro
南部 陽一郎
(1921-2015)
Nobel prize in 2008

Symmetry breaking
Mass generation
String model ...



Expected data

Date: March 2025, five work days

Avoid possible crowd of EXPO2025 from April to October
Hype2025 which will be in fall or winter



Plum garden @ Osaka Castle
Early March



Cherry blossoms @ Philosopher's
path in Kyoto, Late March

Expected data

Location: Osaka downtown or Osaka University

One hour or less from KIX

1.5 hour from KIX



or



~ 400 people



Osaka Convention Center

Osaka University

Physics theme

- Hadron spectroscopy, Structures of mesons, baryons, exotics
 - Hadron reactions and interactions
 - Lattice approach
 - New methods (Machine learning, AI, Quantum computers, ...)
 - QCD and hadron structure
 - Hadrons in hot and dense matter
 - Hypernuclei and kaonic atoms
 - New facilities (J-PARC, KEK, SPring-8)
 - Hadrons and physics beyond the standard model

 - Application to medicals (Cancer therapy)
 - Fukushima project (reconstruction)
- Social contributions*

Progress of J-PARC