Thank you very much !!!

➔Keynote & Invited lectures

Prof. Junji Yumoto (U-Tokyo)
CEO & CTO Nicholas Kelez (xLight)
Prof. Yosuke Honda (KEK)
Prof. Takeo Ejima (Tohoku University)

➔ All participants (including Zoom)

KEK Intensity-Frontier Accelerator Lab.

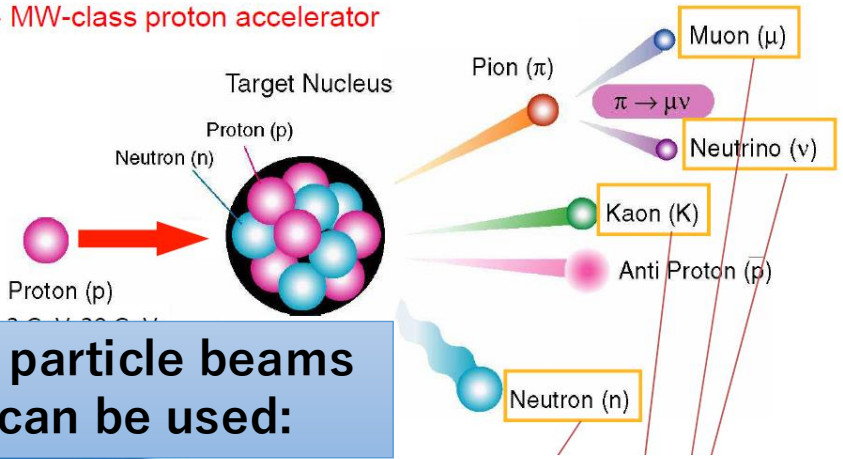
SuperKEKB/J-PARC are the highest Luminosity / power accelerators

Tokai Campus: J-PARC

High intensity proton accelerator complex

JAEA/KEK collaborate construction & operation

→ MW-class proton accelerator



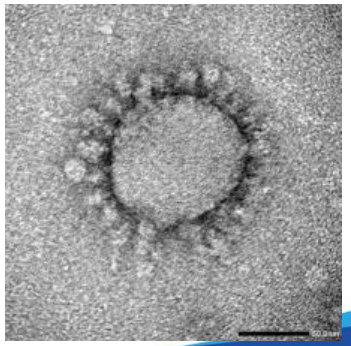
Various particle beams can be used:

KEK Tsukuba:

SuperKEKB, PF,ATF

Electron-base

(nano beam Technology)



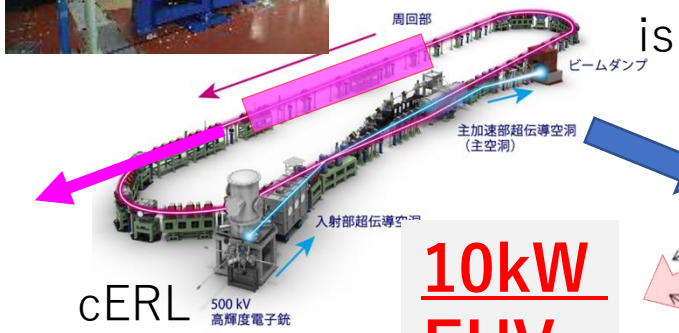
KEK

K Program
経済安全保障重要技術育成プログラム

ERL : Energy recovery linac
reduce power consumption
and radiation

FEL: Free Electron Laser
EUV light with some specific wave
Length / polarization

Achieve IR-FEL generation using cERL in 2021



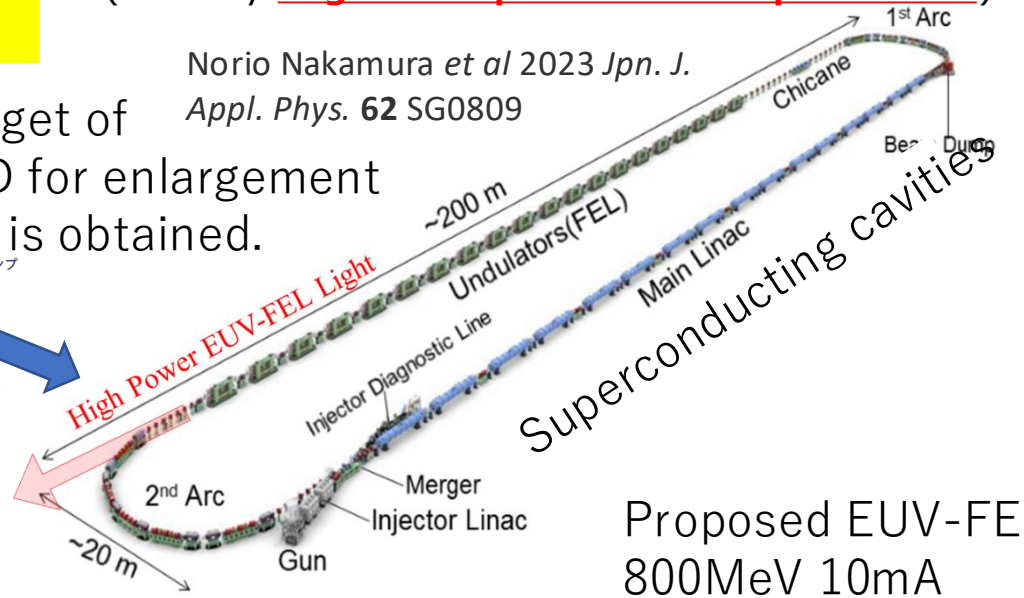
cERL

Budget of
R&D for enlargement
is obtained.

10kW EUV

Most promising next generation EUV light source
(recently **xlight Inc. plan to develop EUV-FEL**)

Norio Nakamura *et al* 2023 *Jpn. J. Appl. Phys.* **62** SG0809



Proposed EUV-FEL
800MeV 10mA

We have basic technologies
Now Try to polish them
Total design including
BEUV

- Compact
- High electric Efficiency

SC Cavity
High Gradient / New material

Electron Gun
High Power / Low emittance

Insight through Accelerators.
KEK

- Optics・Mirrors for are also crucial (we are not expert)
- Connection to Material Scientists/ Companies for Semiconductor are also crucial

We are making these networks.
Please continue to make contribution to EUV-FEL communities

Thanks Again for join today.