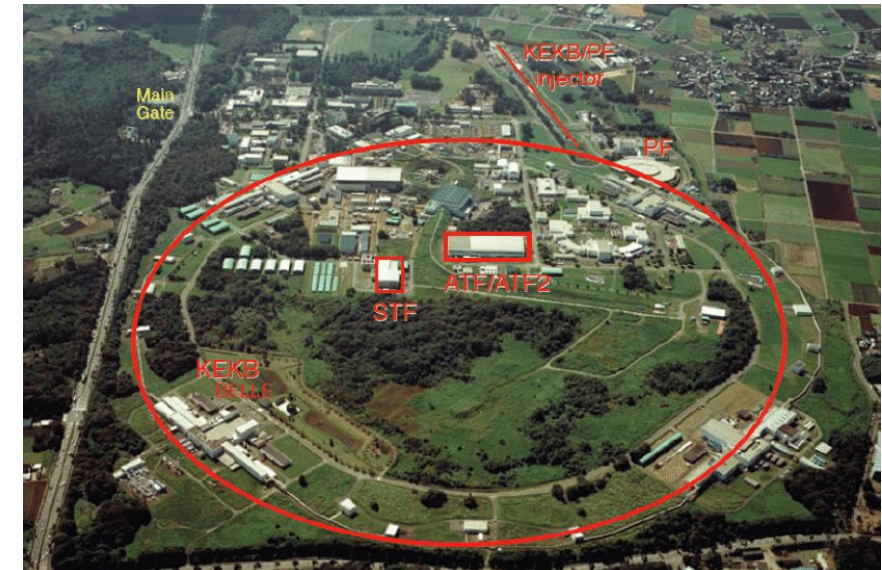


# About Me

## Background, past activities

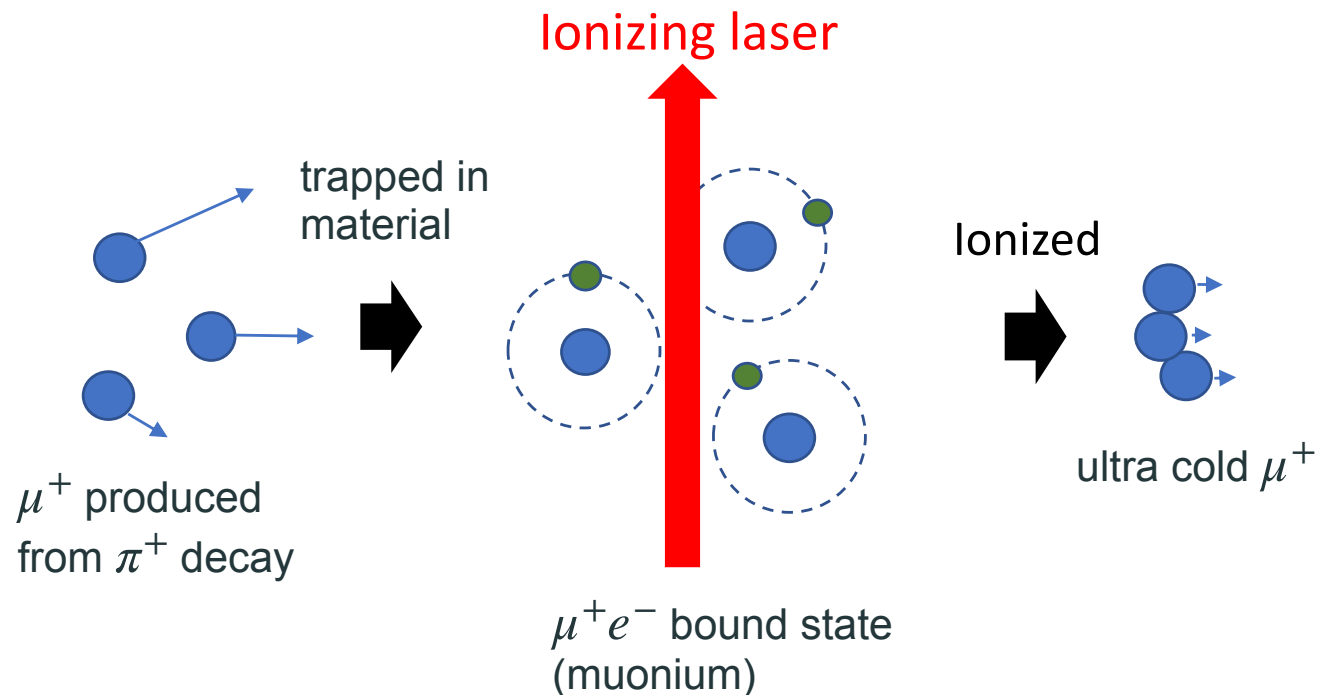
- Name: Yu Hamada
- I got my Ph.D @ Kyoto U., Japan (2021)
- 1st postdoc @ KEK Theory Group, Tsukuba City, Japan 2021-2023
- 2nd postdoc @ DESY Theory Group (Cosmology) since October 2023
- hobby: drinking, running
- favorite drink: beer, Japanese sake (Japanese alcohol), gin, rum



# My Current Work

## Activities and challenges

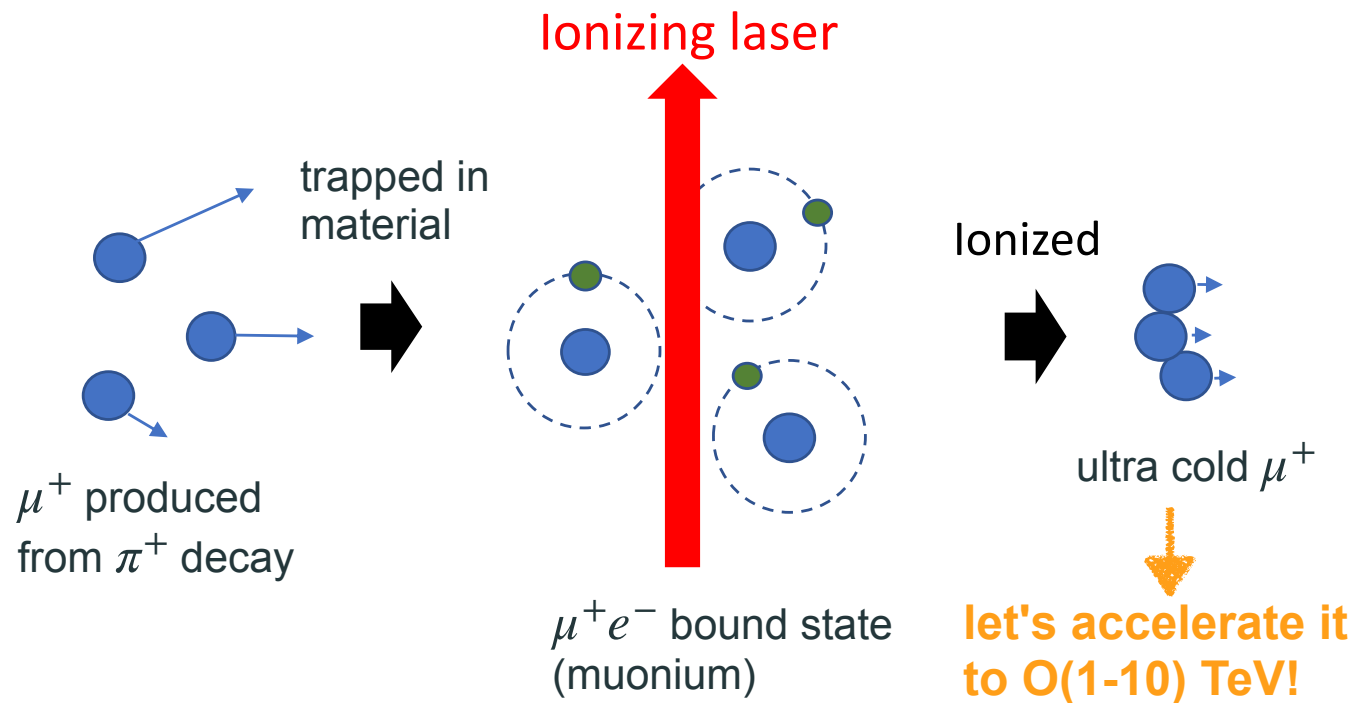
- topological defects (eg., domain wall), gravitational wave
- **muon collider called  $\mu$ TRISTAN**  
[arXiv:2201.06664](https://arxiv.org/abs/2201.06664), [2210.11083](https://arxiv.org/abs/2210.11083), [2406.04500](https://arxiv.org/abs/2406.04500)
  - using ultra-cold  $\mu^+$  beam for g-2/EDM
  - $\mu^+$  cooling technology has been established while  $\mu^-$  beam is difficult
  - $\mu^+e^-$  collider and/or  $\mu^+\mu^+$  collider
  - Higgs precision, (in)direct NP search



# My Current Work

## Activities and challenges

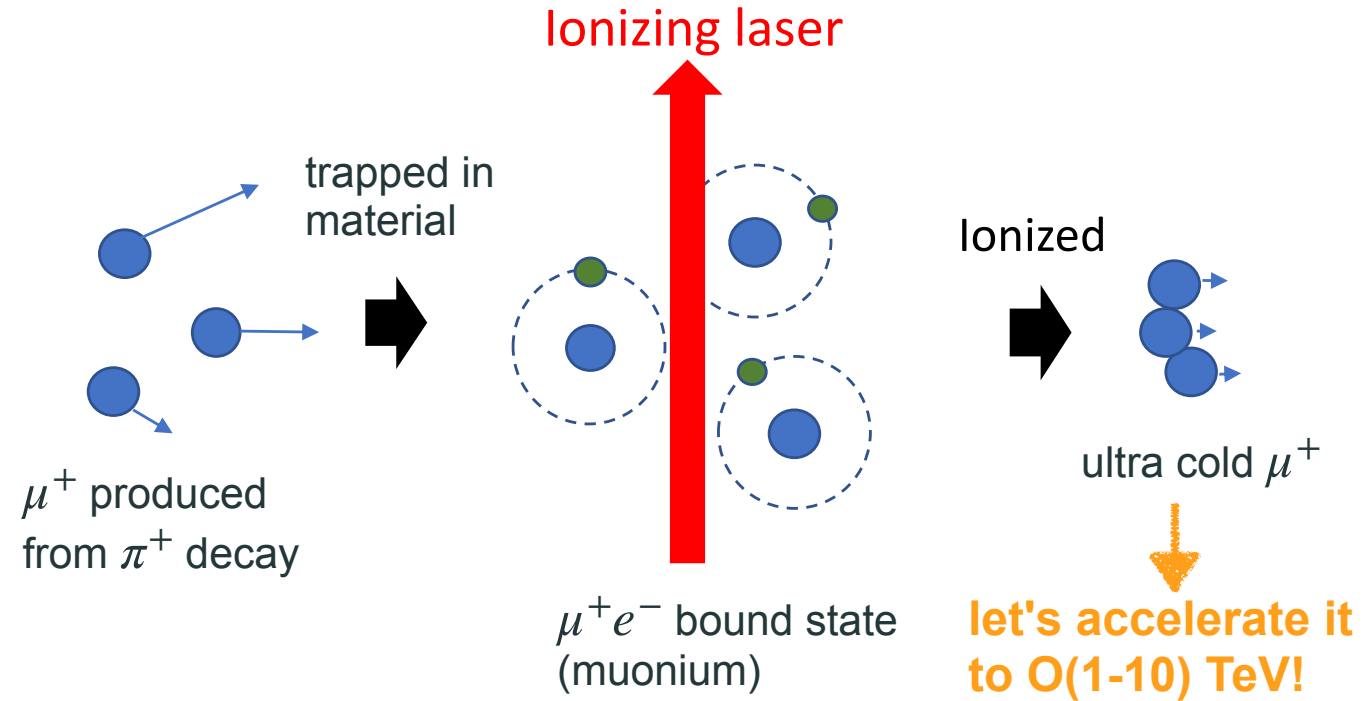
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# My Current Work

## Activities and challenges

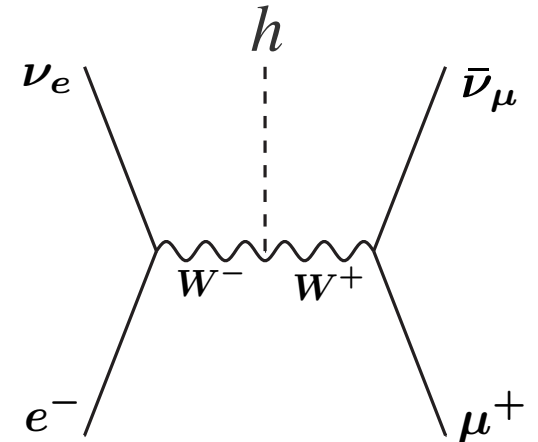
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$$E_{\mu^+} = 1 \text{ TeV}, E_{e^-} = 30 \text{ GeV}$$

$$\mathcal{L}_{\mu^+e^-} = 4.6 \times 10^{33} \text{ cm}^{-2}\text{s}^{-1}$$

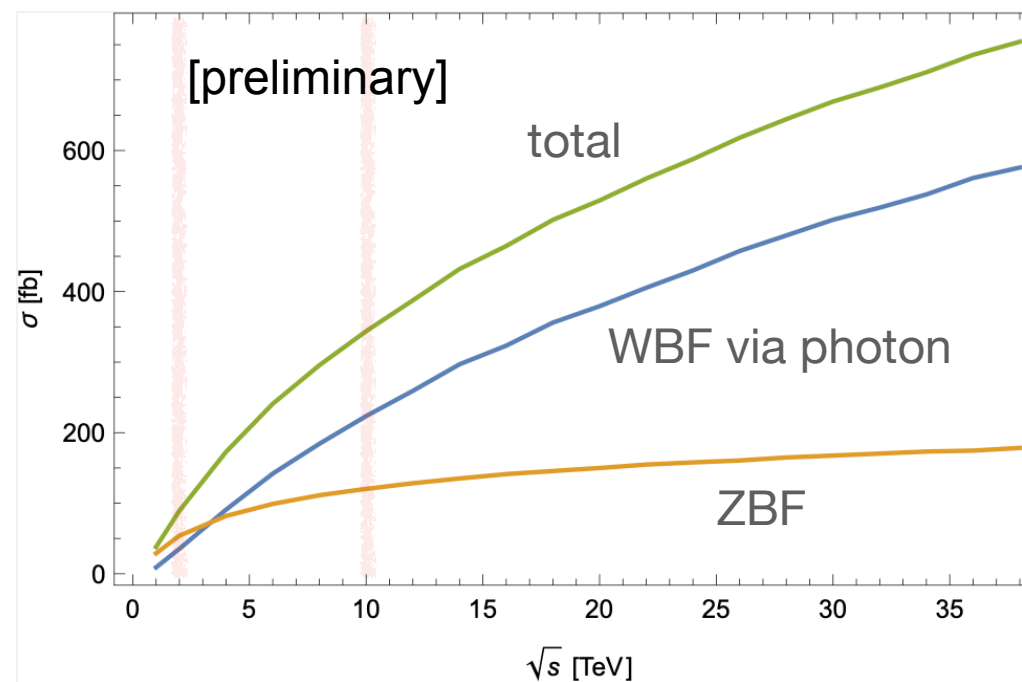
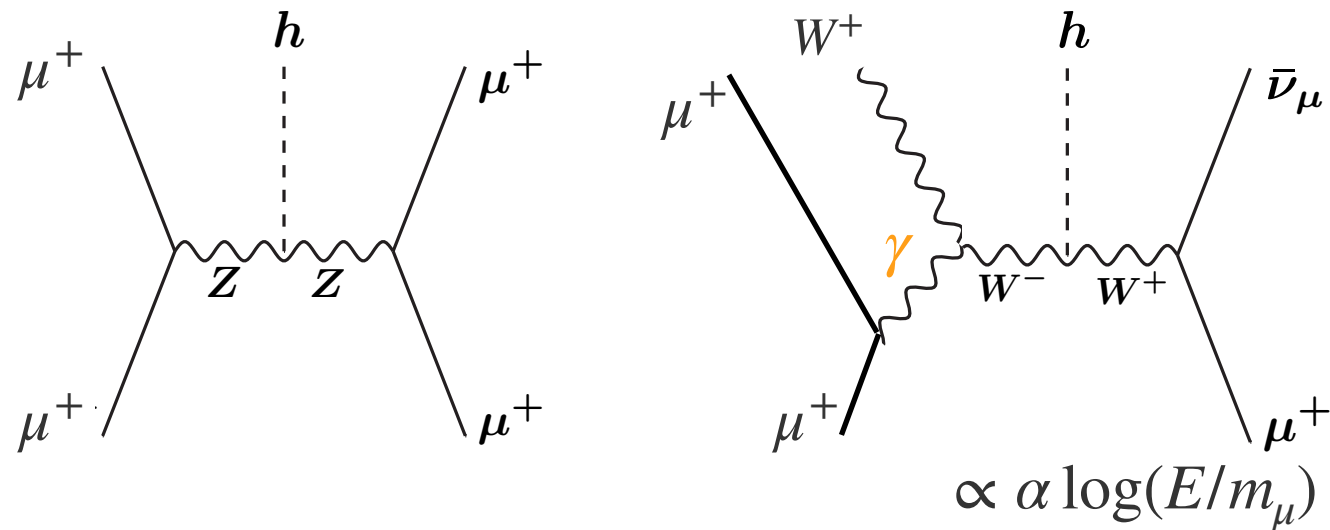
$$N(\text{Higgs}) \simeq 9.5 \times 10^4 \\ (10\text{-yr run})$$



# My Current Work

## Activities and challenges

- topological defects (eg., domain wall), gravitational wave
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## Press Release

World's first cooling and acceleration of muon


[Home](#) > [Press Release](#) > [Materials and Life Science](#) > - The first muon accelerator finally coming to a reality. -

2024.05.23



## World's first cooling and acceleration of muon - The first muon accelerator finally coming to a reality. -

# 30th Future Colliders @ DESY meeting

 Friday 21 Jun 2024, 10:00 → 11:29 Europe/Berlin

 SemRm 1 (DESY)

## Description SemRm 1

if-need-be zoom:

<https://desy.zoom.us/j/87044077489>

Meeting ID: 870 4407 7489

Passcode: FC@DESY

### 10:00 → 10:05 News and Announcements

 5m

**Speaker:** Benno List (IPP (Info-management Prozesse u. Projekte))

### 10:05 → 10:30 Flavour Challenges from Belle II to Future Colliders

 25m

**Speaker:** Thibaud Humair (BELLE (BELLE Gruppe))

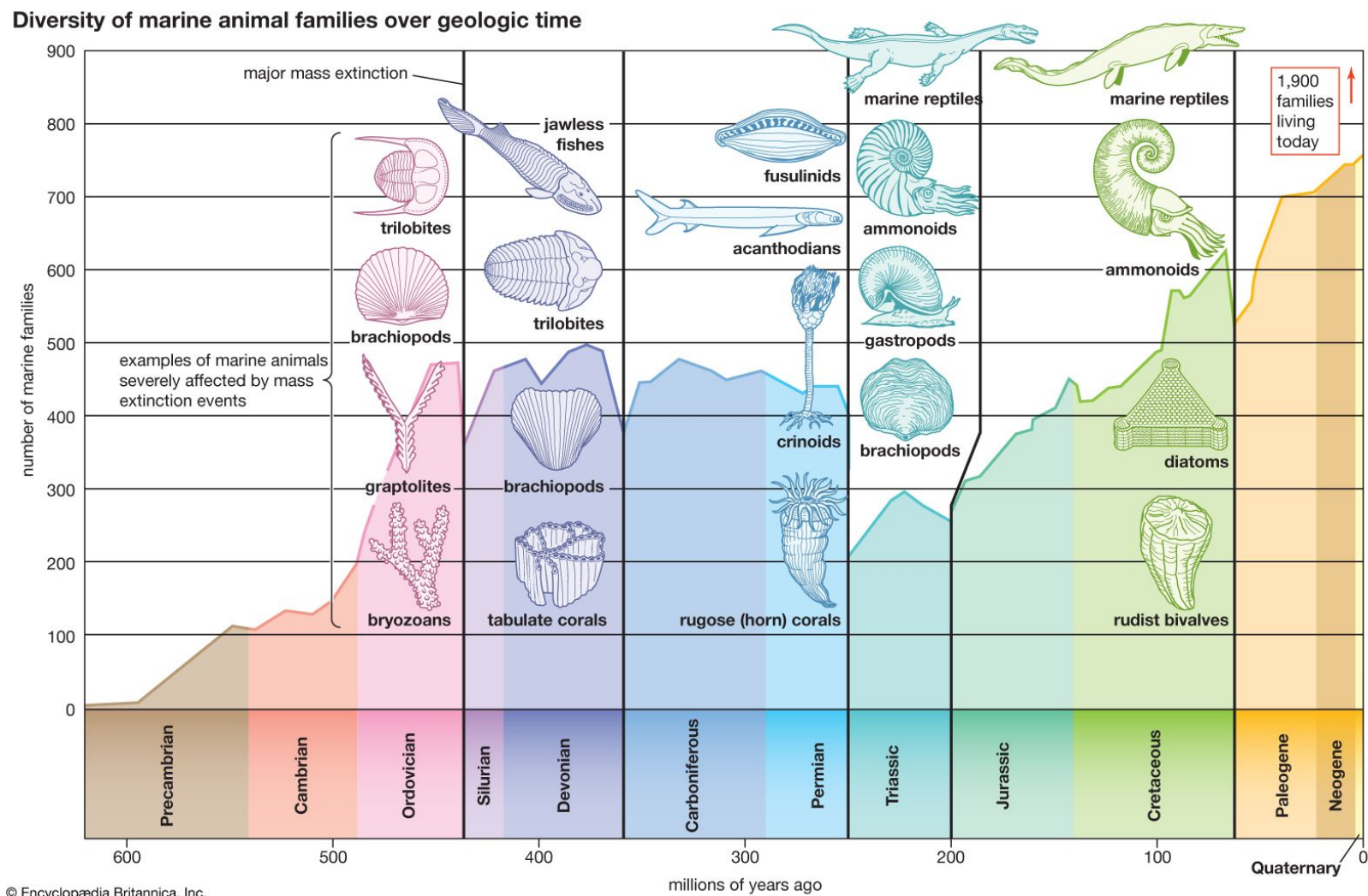
### 10:30 → 10:55 muTRISTAN

 25m 

**Speaker:** Yu Hamada (None)

# My Favorite Plot

Or the one question you always wanted to ask!



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**Or the one question you always wanted to ask!**

- **distinction of a lot of BSM models**  
→ **new age of particle physics!?**

