

Future Colliders Workshops (FCWS)

Vittorio Del Duca INFN LNF

Workshop
on
High Luminosity LHC and Hadron Colliders

LNF, October 1-4, 2024

Workshop
on
FCC-ee and Lepton Colliders

LNF, January 22-24, 2025

Goal

inform the Italian high energy physics community
on the opportunities and challenges
presented by future colliders

in view of the European Strategy Particle Physics (ESPP) update

Format

school/workshop

ECFA-INFN ECR meeting, 1 October 2024

Future Accelerator options

ESPP 2020 recommendation

Alternative options

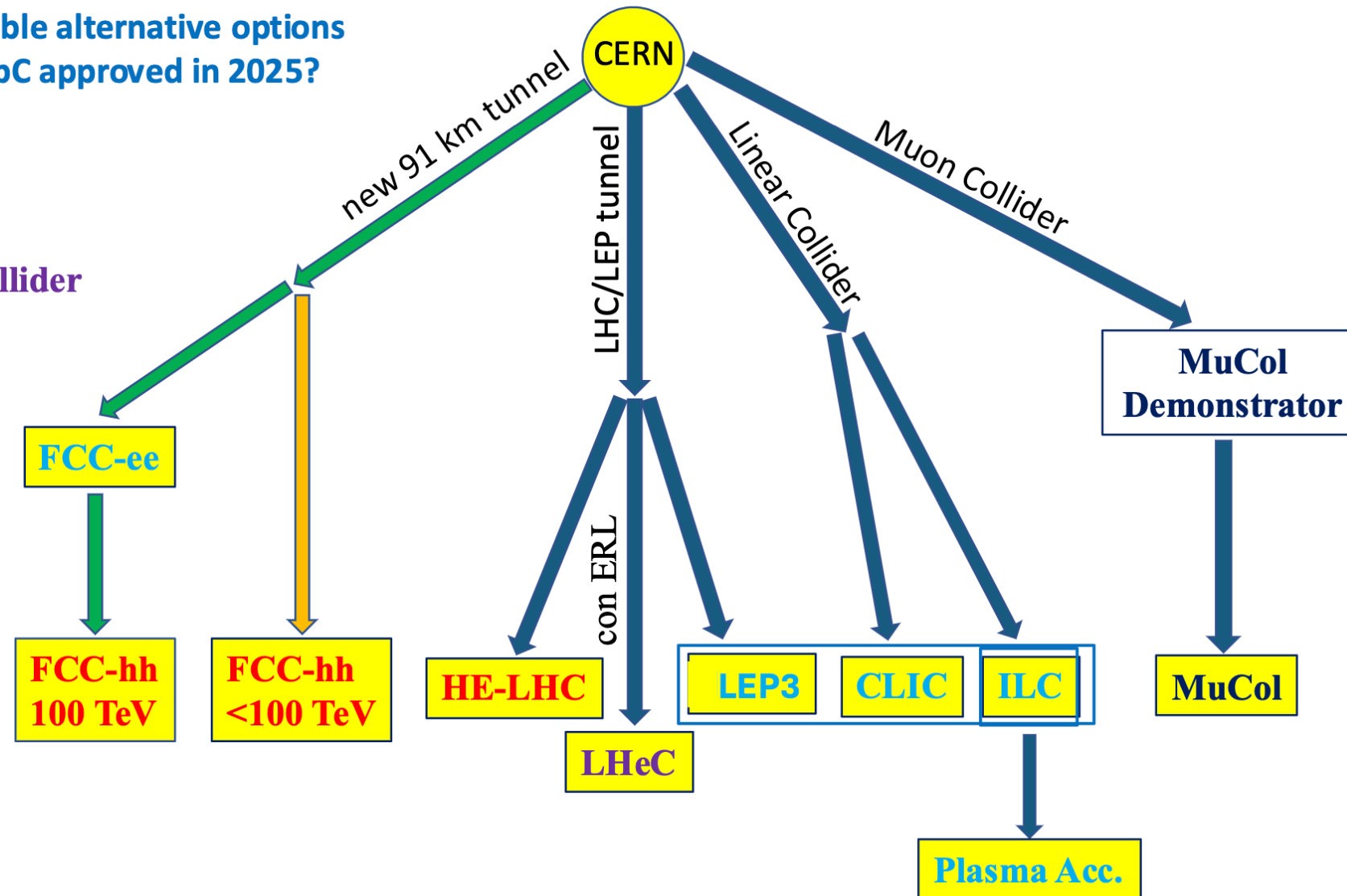
Possible alternative options
if CepC approved in 2025?

e^+e^- collider

hadron collider

electron-hadron collider

$\mu^+\mu^-$ collider



ECFA-INFN ECR meeting, 1 October 2024

Future Accelerator options

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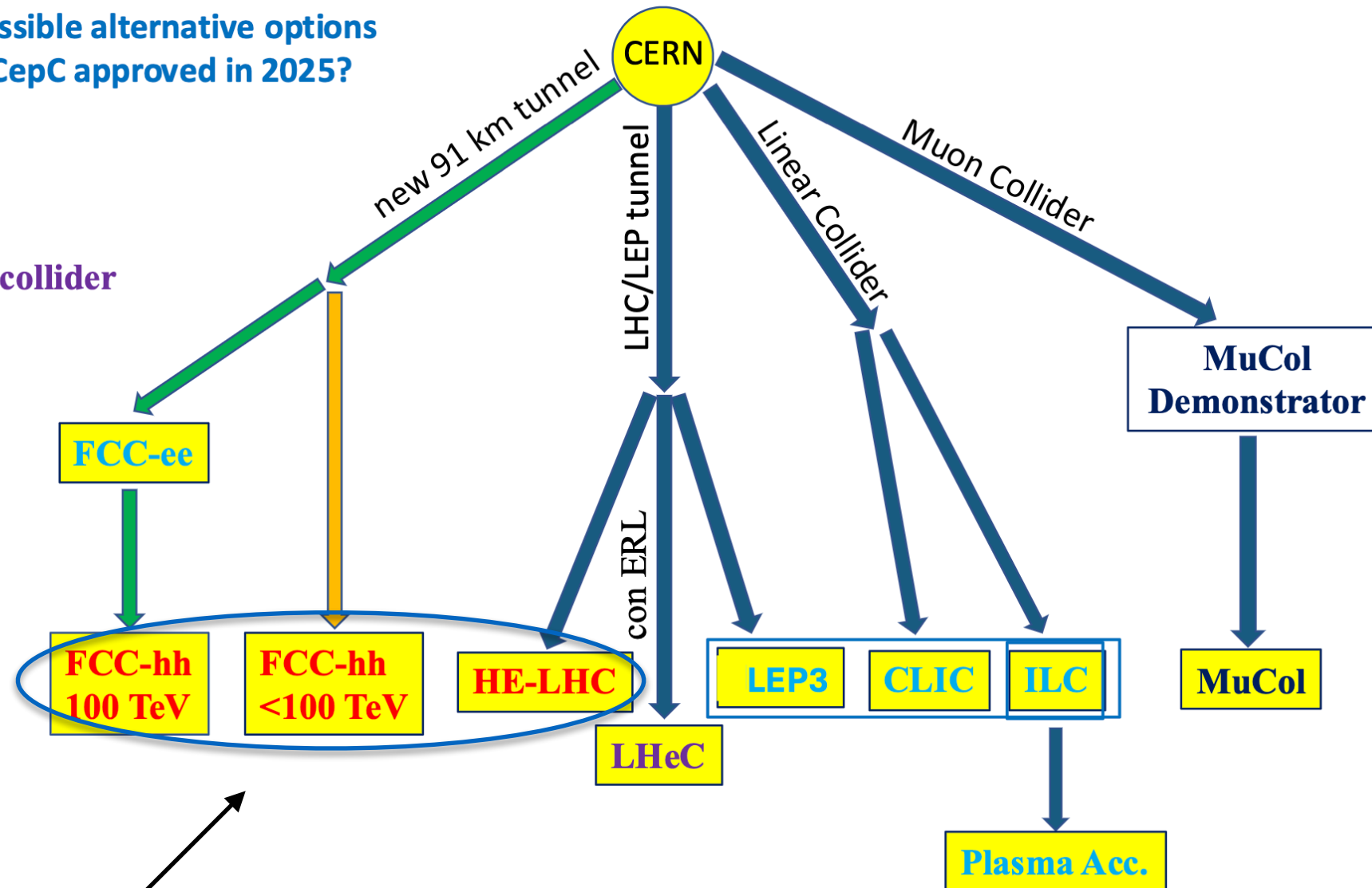
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discussed last October in FCWS1

S. Malvezzi, A. Nisati

in October we discussed

Sure future:
High Luminosity **LHC**

(Hadron) future options:
FCC-*hh* (at 70-100 TeV)
HE-**LHC**

this week we will discuss

(Lepton) future options:

FCC-ee

SuperKEKB

MuCol

μ TRISTAN

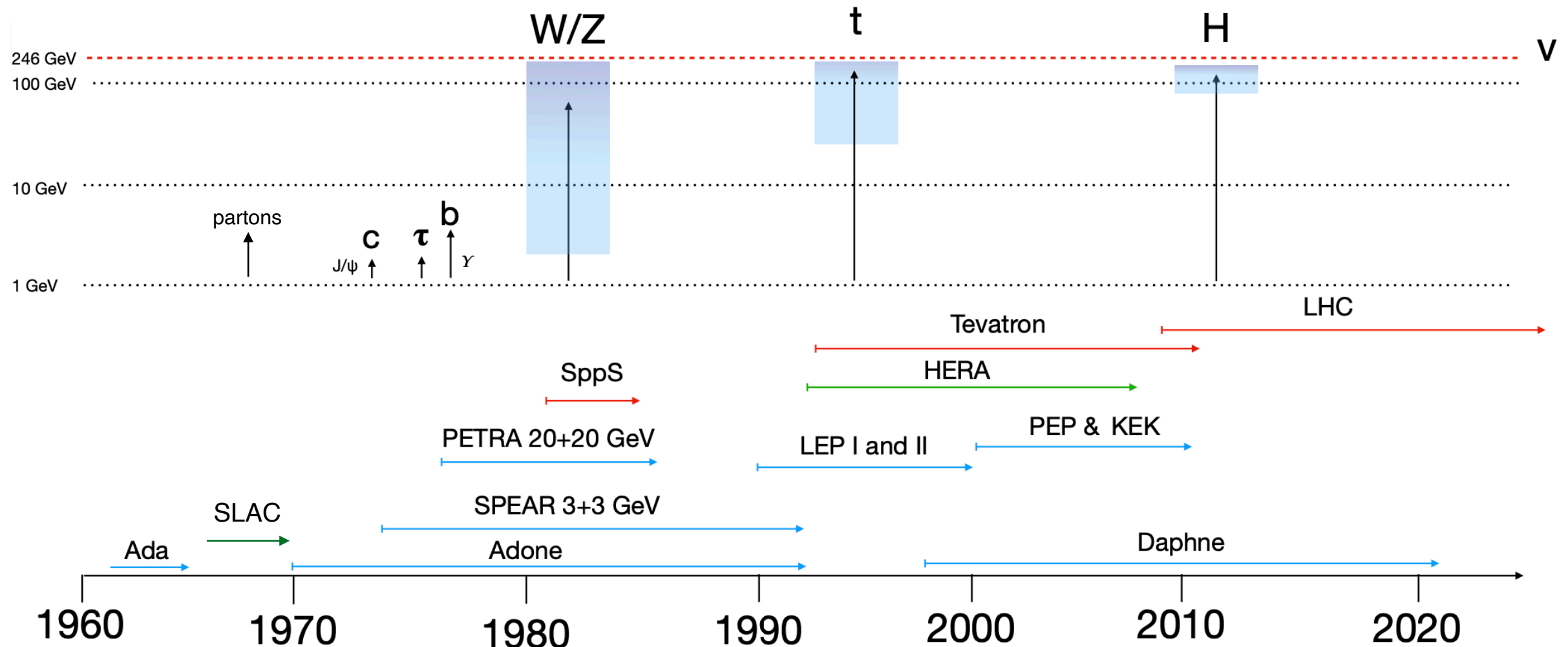
LEP3

Linear Colliders

Brief history of collider physics

marked by colliders and particle discoveries

F. Maltoni at LFC24



blue: lepton colliders

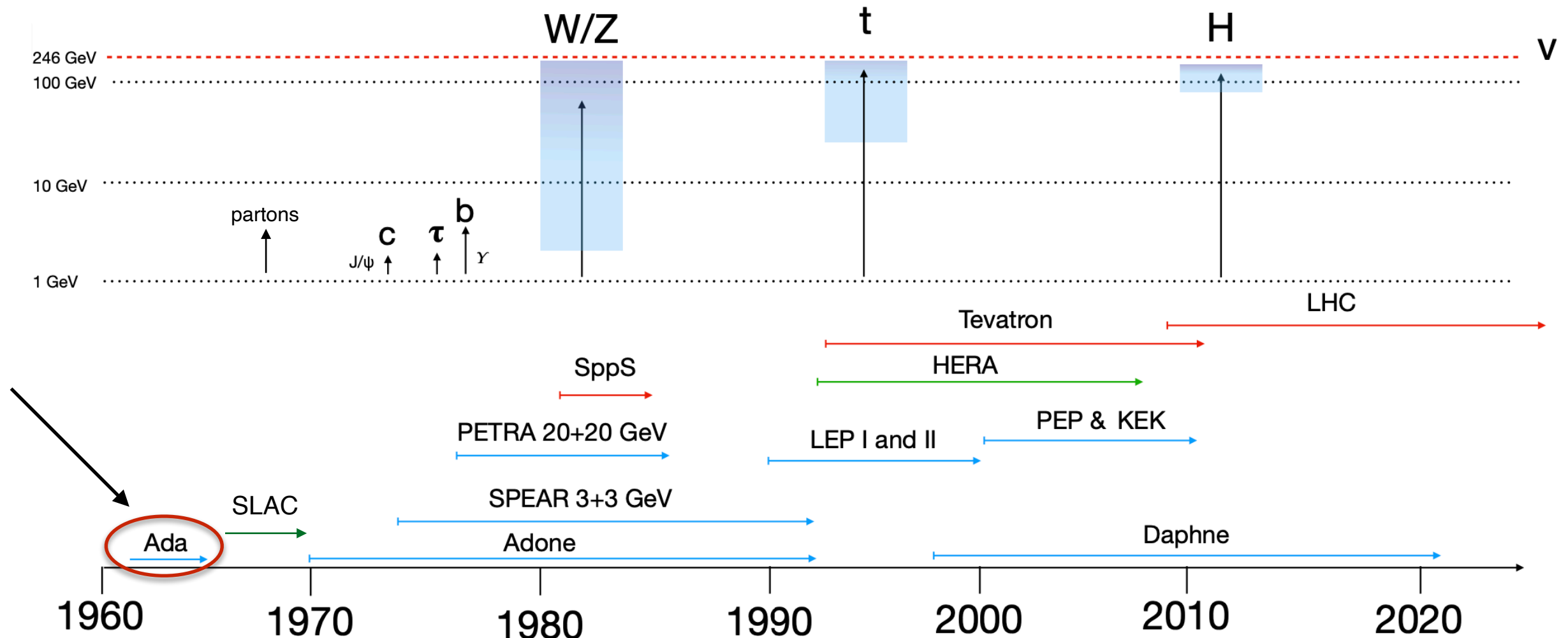
red: hadron colliders

green: lepton-hadron colliders

Brief history of collider physics

marked by colliders and particle discoveries

F. Maltoni at LFC24



blue: lepton colliders
red: hadron colliders
green: lepton-hadron colliders

Practicalities

- Access is through **secondary gate**, via E. Fermi 60, **until**
19:30 (today)
20:00 (tomorrow)
16:00 (Friday)
and through **main gate**, via E. Fermi 54
- Bldg. 36 is open **until 20:00**
A1 room available to workshop participants
- Bar is open **until 11:00**, and **at 12:30-14:30**
- **Lunches** are served at the cafeteria (adjacent to main gate)
at 13:30-14:30
- Info on **social dinner** on the webpage

LNf site map

cafeteria

main gate

bar

bldg. 36 (you are here)

secondary gate





Secretariat:

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