#### Closeout

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### Battle field of HEP



No direct observation of new physics at LHC (free play ground) Flavour physics is our battle horse

# Organise our effort



Cortile della ghiacciaia ("the old fridge")

Save effort and use different expertises by working in **collaboration** 

#### Prepare new measurements/experiments



Cortile della legnaia ("the old kitchen")

No recipe for new physics but **new experimental effort** is planned

### EDM/MDM experiments

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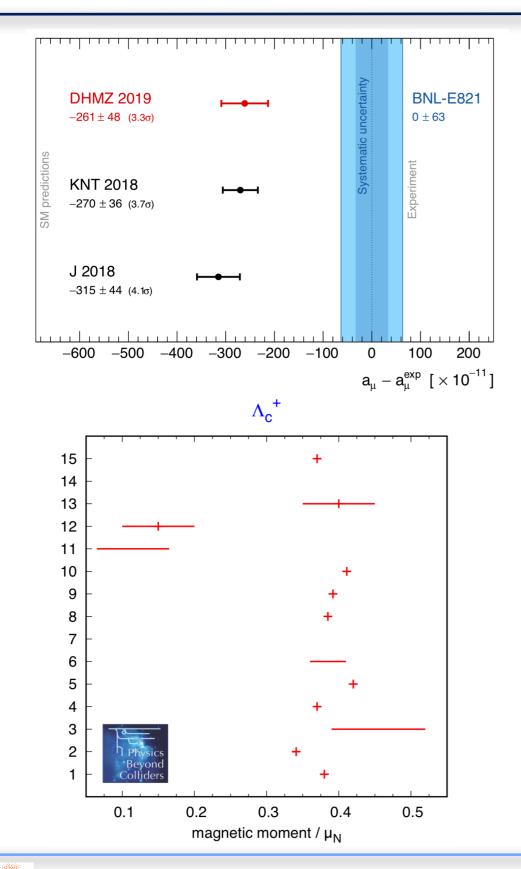
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- Sant'Ambrogio -Adolf Wildt 1928
- EDM/MDM: whip to fight and dominate SM background



## MDM measurements



Test the SM with lepton g-2: electron, muon, proposal also for tau

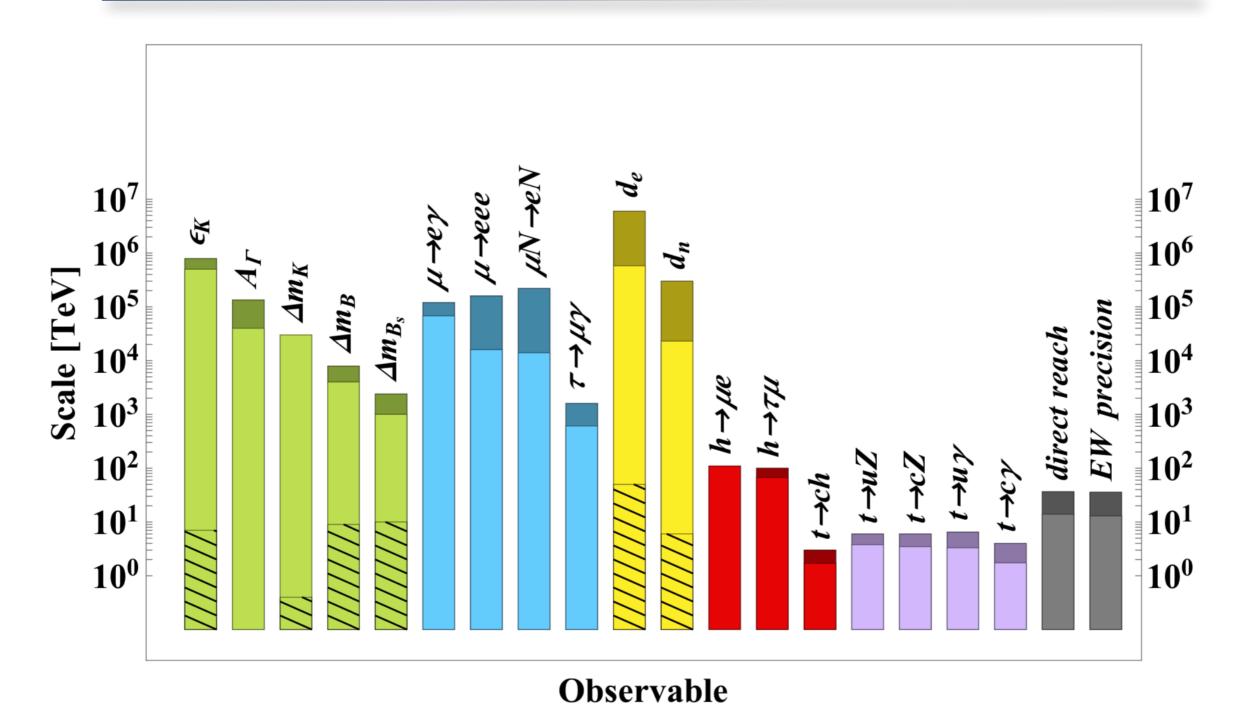
Experimental anchor points for QCD models with heavy baryons

Understand the quark contribution to baryon polarisation

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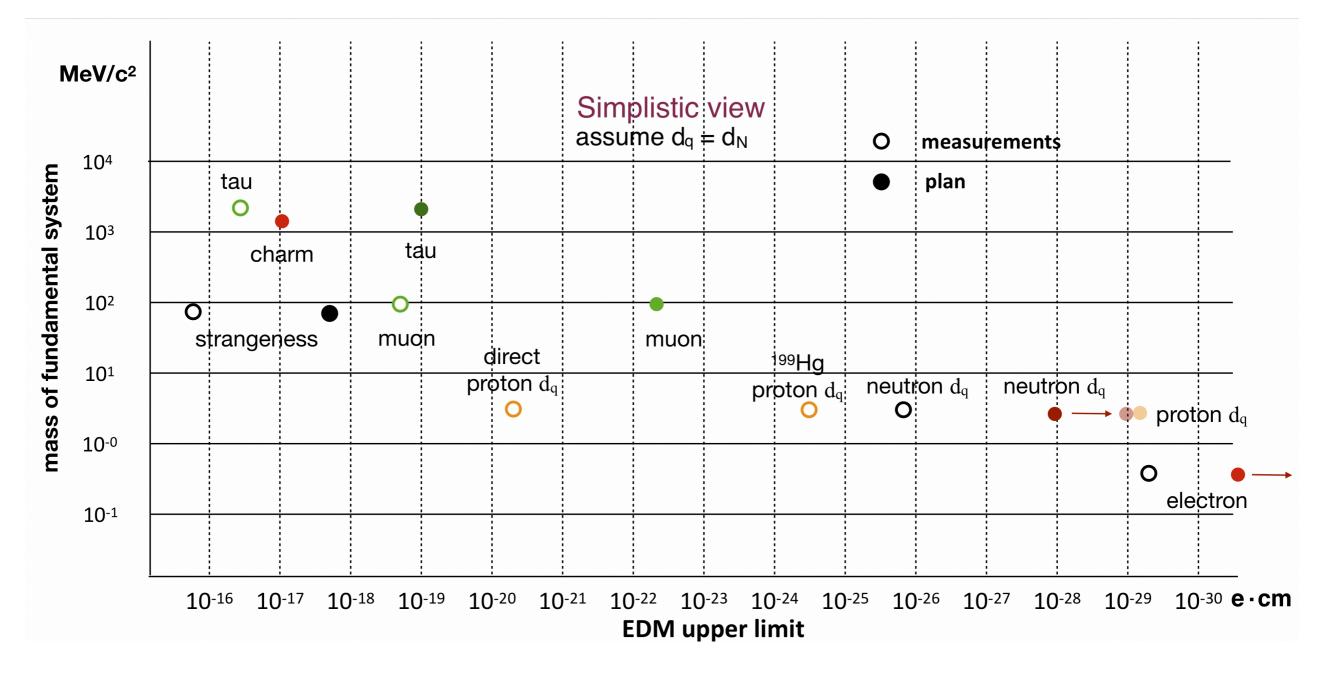
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#### EDM as probe for new physics



EDM can explore the highest energy scale

### EDM limits: current and future



#### Transform this program into real measurements!

# The future is bright

- g-2 at Fermilab and Japan
- MUonE at CERN
- Neutron MDM and Muon EDM at PSI
- Heavy baryons: strange, charm, beauty at LHCb
- Tau lepton: proposed future dedicated experiment at LHC

# EDM/MDM community

- Extremely interesting to meet different experimental communities interested in MDM/EDM of different systems
- Same scientific interest but very different expertise might bring new ideas and enterprises
- Very useful to keep contacts and possibly organise future workshops

Nicola Neri

# Thanks everybody!



# Special thanks to Noemi!



Noemi deserves a special thanks for the organisation of the workshop, taking care of everything and of everybody !

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