

# Concluding Remarks

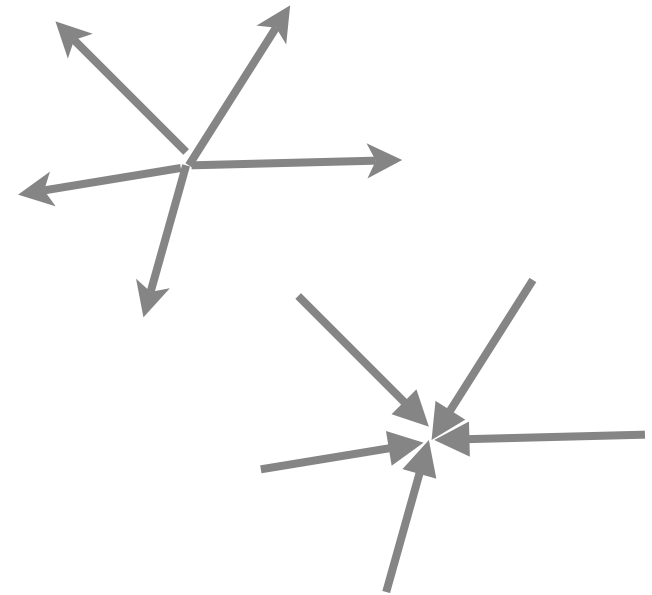
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# Next Particle Physics

- studies new physics beyond SM because there got to be one!
- $E = mc^2$  : energy frontier
- $\Delta E \Delta t \sim h$  : Intensity Frontier
  - Probe beyond the energy limit
  - Study flavor structure of New Physics
- Dark matter

# Science needs:

- diversity
- multiple angles of view
- multiple experiments
- because
  - experimentalists don't necessarily agree
  - theorists are NOT always right, and
  - we do NOT know where the Truth lies



# Diversity

- is not expensive
- order(s) of magnitude differences in € between Energy frontier experiment, Super B, phi, K experiments
- Yet, they are all sharp knives to cut into the new physics

# Future B factories

- Belle + BaBar : great success
- LHCb : coming up
- Super B @INFN
- Super KEKB
- Prove technology & Get funding

# K experiments

- have made
  - precise measurements,
  - high sensitivity searches
- to
  - test the foundation of standard model physics
  - probe new physics beyond the SM

# Next Kaon Experiments

- KLOE-2
- CERN NA48 / 3,4,5.....
- J-Parc Step 1, 2, ...
- Super  $\phi$
- Fermilab's next generation experiments
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# So, we should

- support / collaborate / compete each other within
  - Kaon physics community
  - Flavor Physics community
  - Particle Physics community
- all for discovering new physics beyond the standard model