



Visible Dark Photon Sessions Thursday

13:30 → 15:00 **Visible Dark Photon Searches: Session 1 (Kavli Auditorium)**
Conveners: Maxim Perelstein , James Alexander (Cornell University (US)) , Maxim Perelstein (Cornell)

13:30

SHIP



Speaker: Gaia Lanfranchi (Istituto Nazionale Fisica Nucleare Frascati (IT))

  SLAC2016_DarkPho...

14:00

SeaQuest

Speaker: Ming Liu (Los Alamos National Laboratory)

  Dark-photon-Higgs-...

14:30

LHCb

Speaker: J Michael Williams (Massachusetts Inst. of Technology (US))



  DarkSectors_Willia...

16:30 → 18:00 **Visible Dark Photon Searches: Session 2 (Kavli 3rd floor TBC)**
Conveners: Maxim Perelstein , Maxim Perelstein (Cornell) , James Alexander (Cornell University (US))

16:30

APEX


Speaker: Bogdan Wojtsekhowski (JLab)

  APEX_2016_Wojtse...

17:00

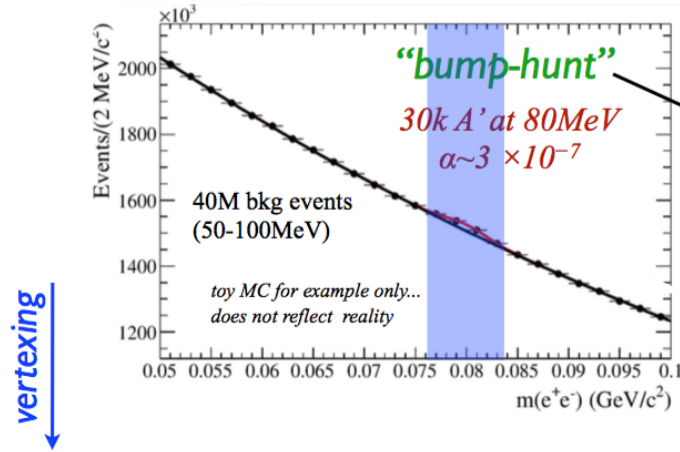
HPS

Speaker: Timothy Knight Nelson (SLAC National Accelerator Laboratory (US))

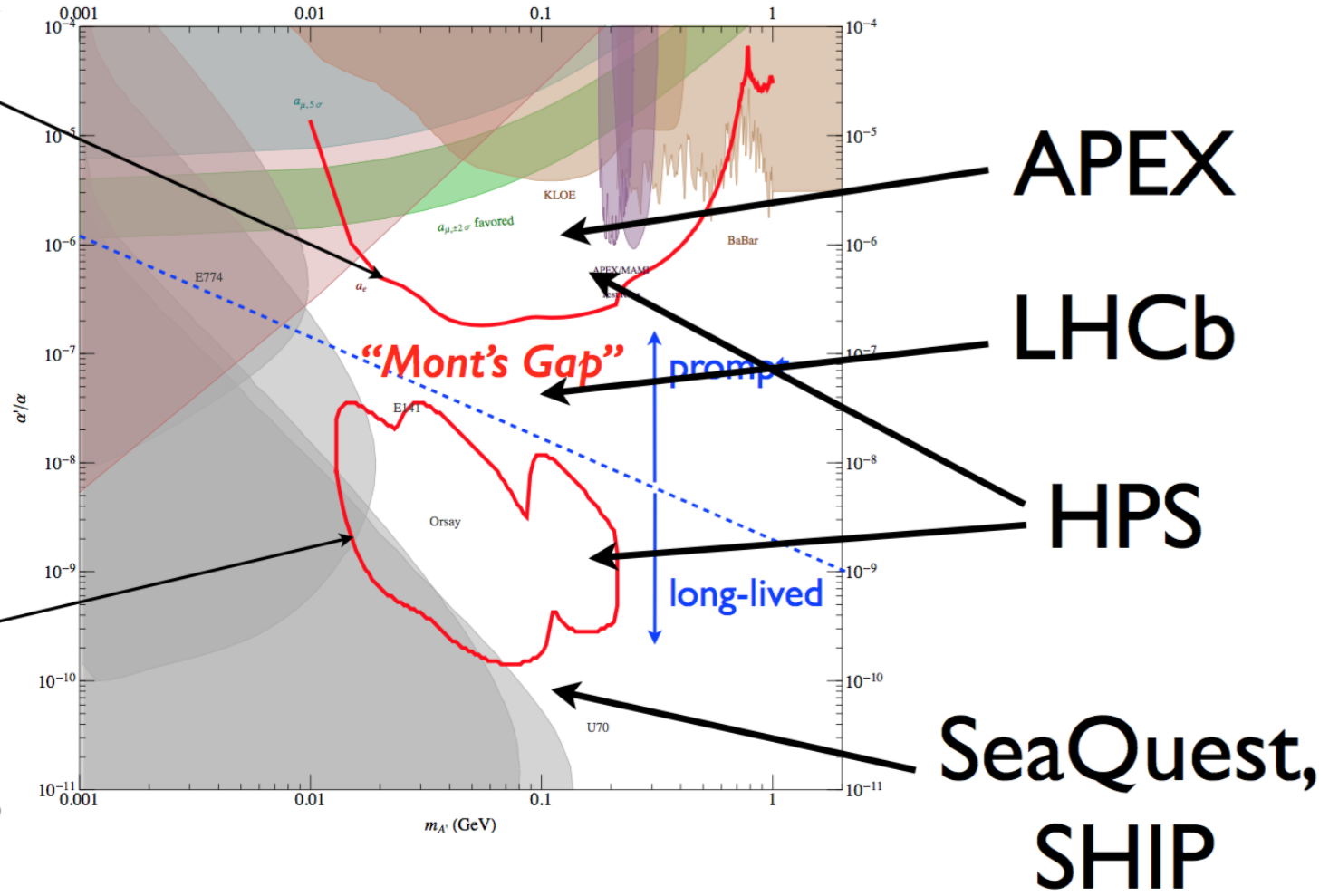
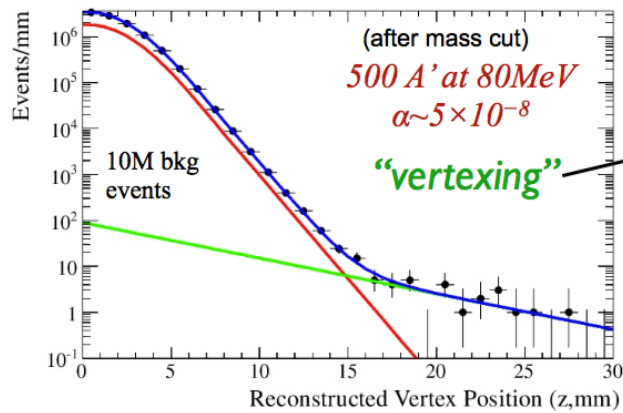
  HPS_Future_tkn.pdf

HPS Signal Sensitivity

Large signal, *HUGE* background



Small signal, NO background

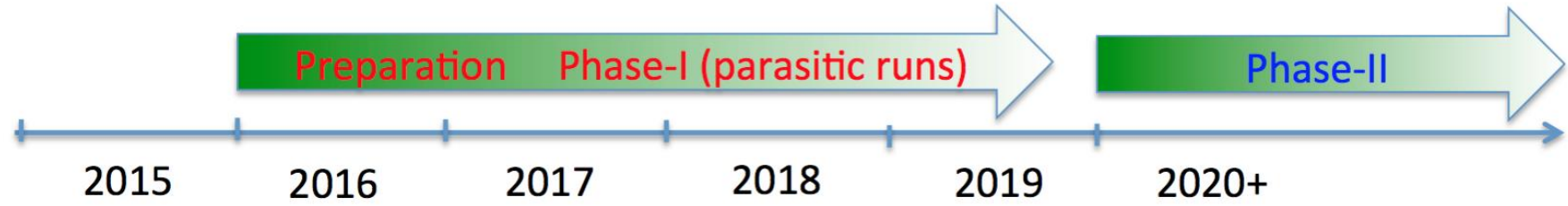
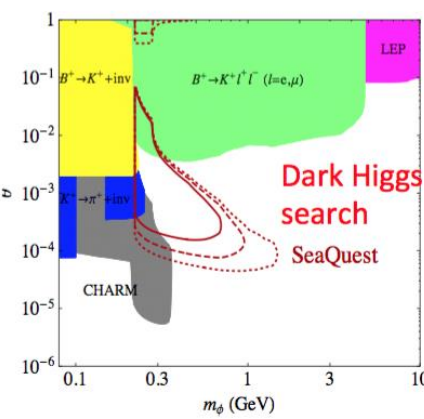
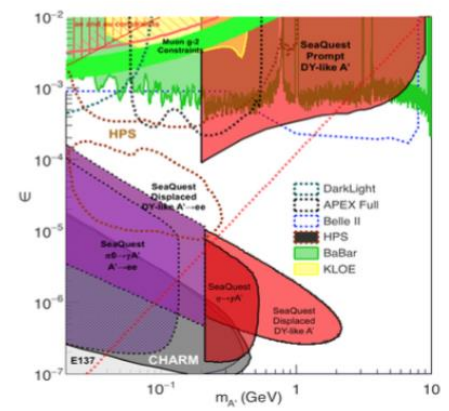
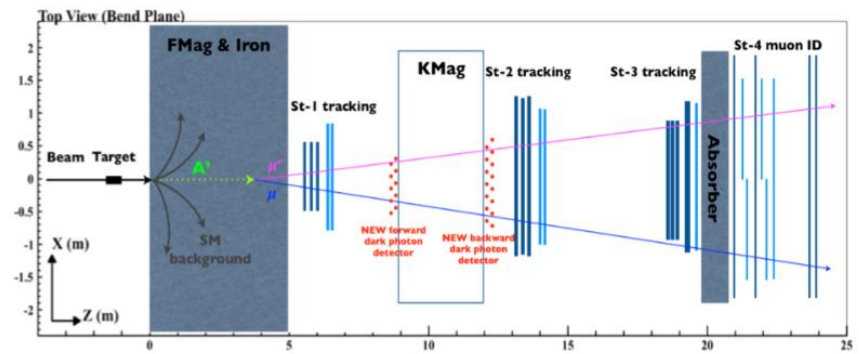


[slide from Tim Nelson]

SeaQuest @ FNAL Summary and Outlook

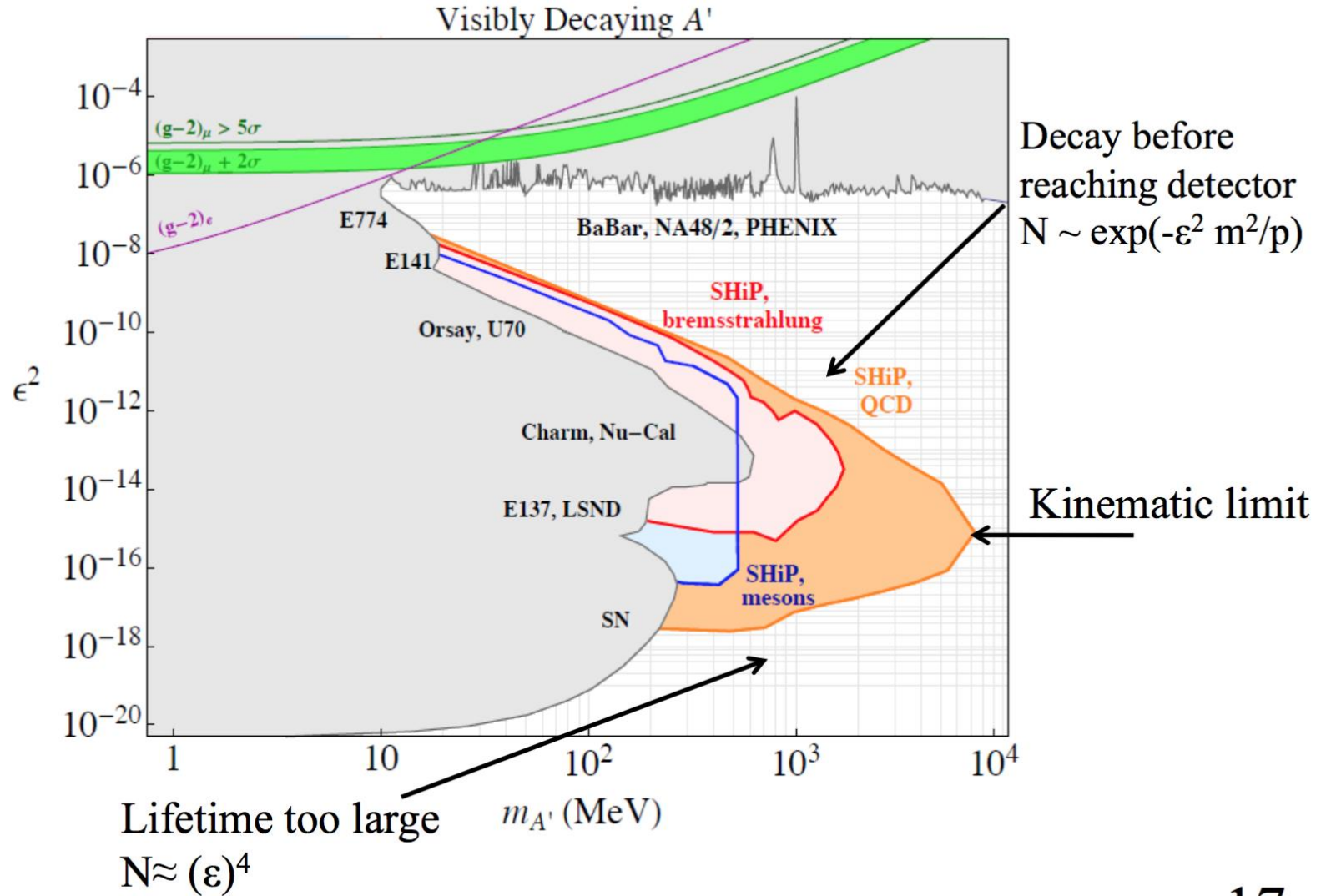
- **Phase-I**
 - Great discovery potential!
 - Add a new displayed vertex trigger
 - Early parasitic data taking 2017-2019+
 - A short dedicated run up to ~1 month if needed
 - POT 1.4×10^{18} or more

- **Phase-II**
 - Possible detector upgrade later, add electrons and hadrons
 - A new dedicated dark matter program at Intensity Frontier!





$2 \cdot 10^{20}$ pot in 5 years of running

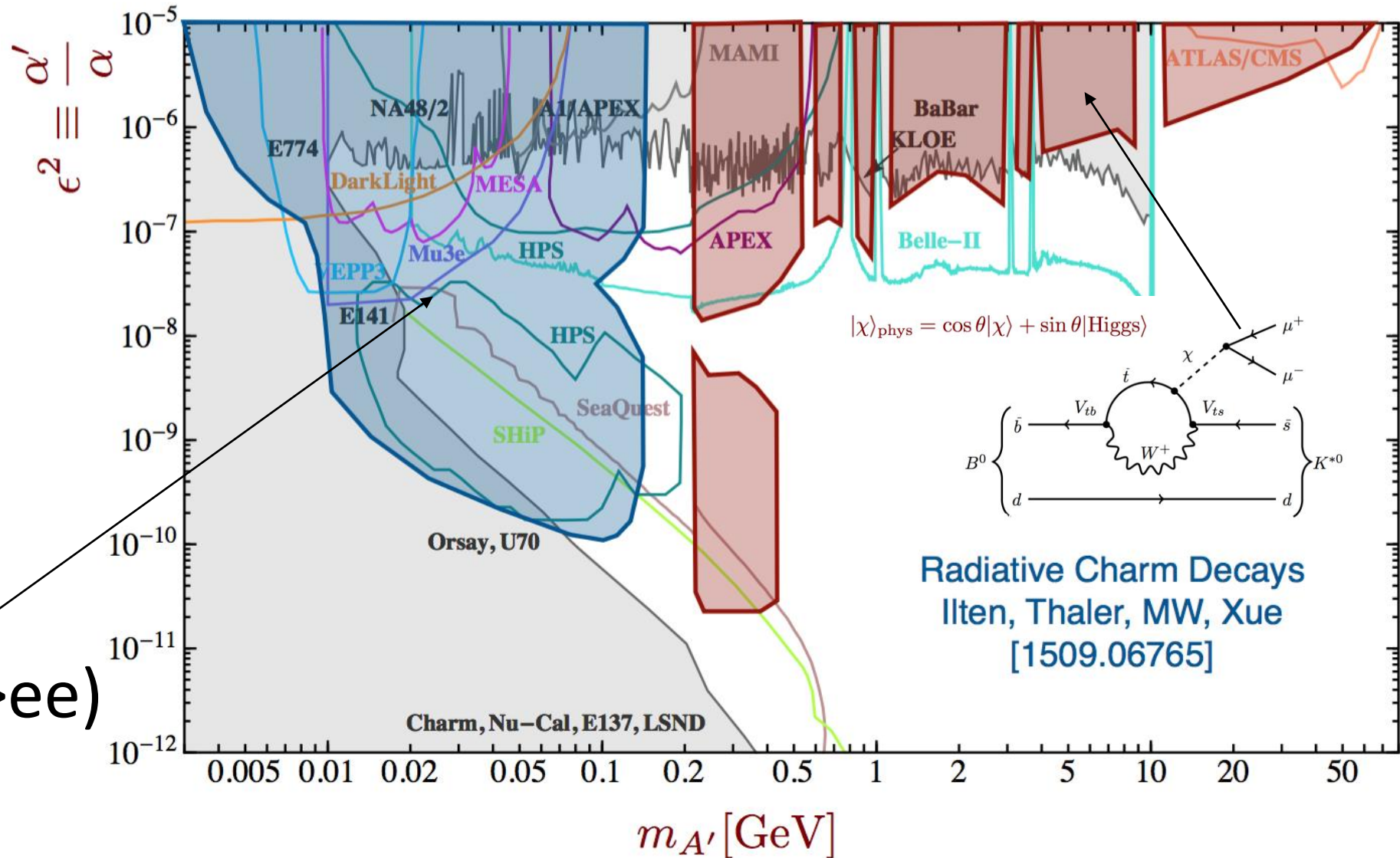


LHCb @ LHC run3

Dark Photons

Move to a triggerless detector readout in Run 3 will have a huge impact on low-mass BSM searches, including dark photons.

$D^* \rightarrow D0 A' (-> ee)$



Bogdan Wojtsekhowski
APEX,
Very Asymmetric Collider

A new concept: Very Asymmetric Collider CESR and ERL

