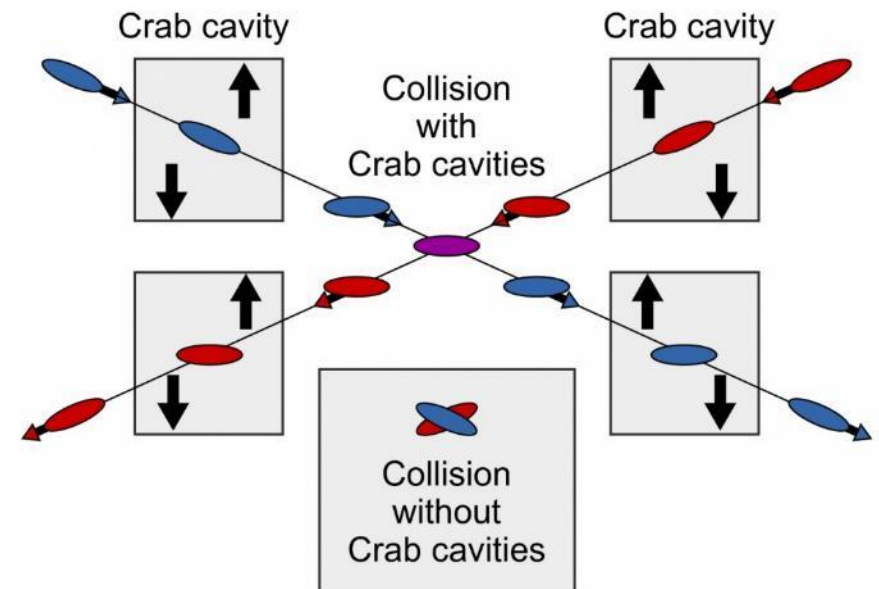


# WG2 SRF: WP3 Crab Cavities

## Design Review #6

Peter McIntosh  
UKRI-STFC Daresbury Laboratory

13<sup>th</sup> Oct 2023



# Agenda for WP3 Design Review #6 (BST)

Friday 13 <sup>th</sup> October 2023			
14:00	Welcome and Introduction	P McIntosh (STFC)	5 min
14:05	KEK Nb Procurement status	A Yamamoto (KEK)/K Yasuchka (KEK)	20 min
Cavity Design Updates			
14:25	RF Dipole (RFD)	Suba De Silva/Jean Delayen (ODU/JLab)	15 + 5 min
14:45	Quasi-waveguide Multicell Resonator (QMIR)	Andrei Lunin (FNAL)	15 + 5 min
15:05	Collaborative discussion	All	20 min
15:25	Next steps	P McIntosh (STFC)	5 min
15:30	Meeting close		

# Scope Design Review #6

- Hear about progress for Nb material procurement:
  - Clarify timescales expected and alignment needed for CC design readiness.
  - Any issues still to resolve?
- Review the RF and QMiR CC developments following April down-selection:
  - Determine how much work still to do before prototype manufacture can start.
- Review possible areas for contribution from the Elliptical, DQW and WoW teams.
- Identify next stage development and determine future meetings.

# Collaborative Areas Identified from DR#5 (July)

- RFD:
  - EM design verification
  - RF properties
  - HOM impedances
  - Wakefield analysis (longitudinal, transverse) for short bunch length
  - Full cavity multipacting analysis
  - Engineering design and analysis
  - Fabrication
  - Tuner concept development
- QMiR:
  - Statistical HOM analysis
  - Multipacting simulation
  - Cavity Electro-Mechanical cross-simulations
  - Frequency tuner design

**MANY THANKS**

**Questions?**