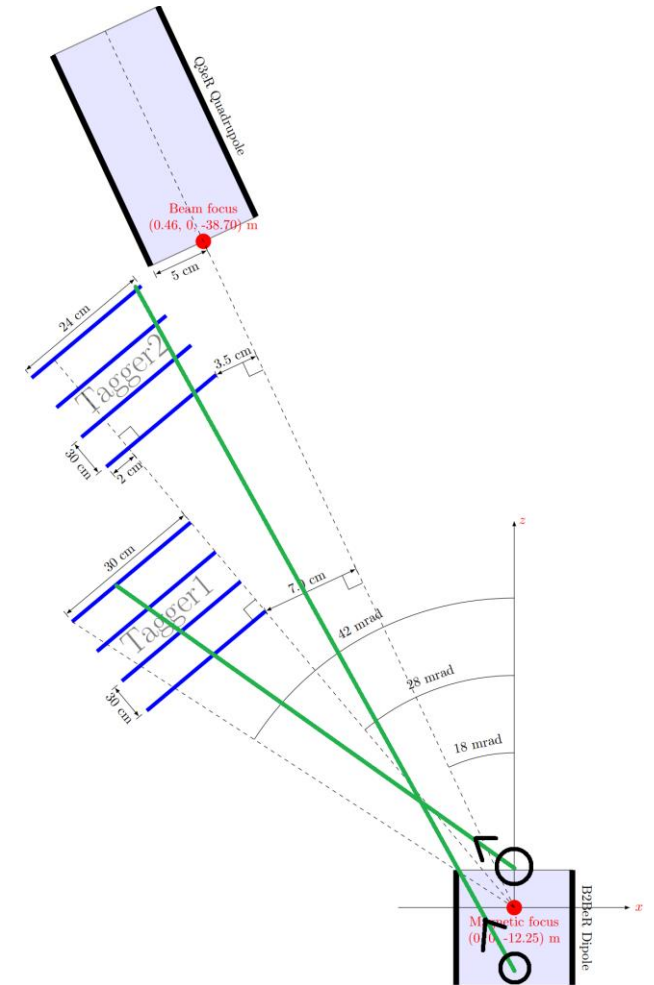
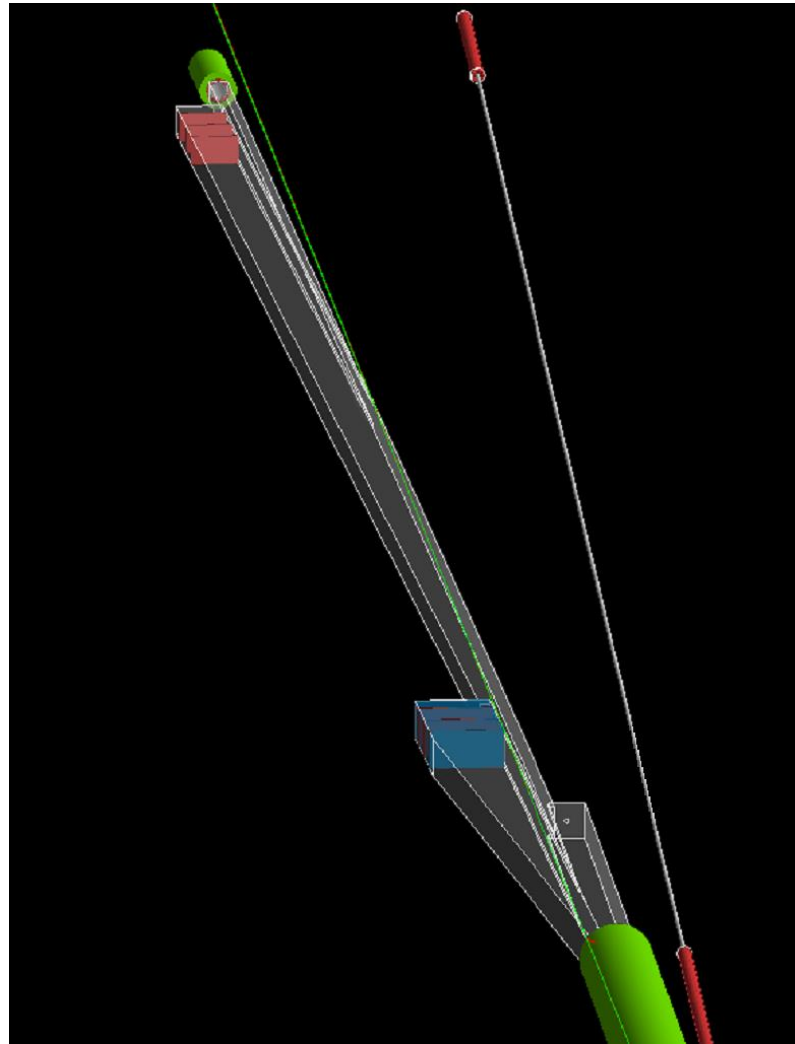


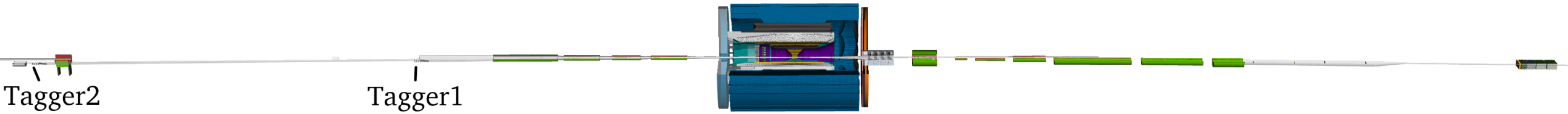
Far Backward - Low- Q^2 Tagger

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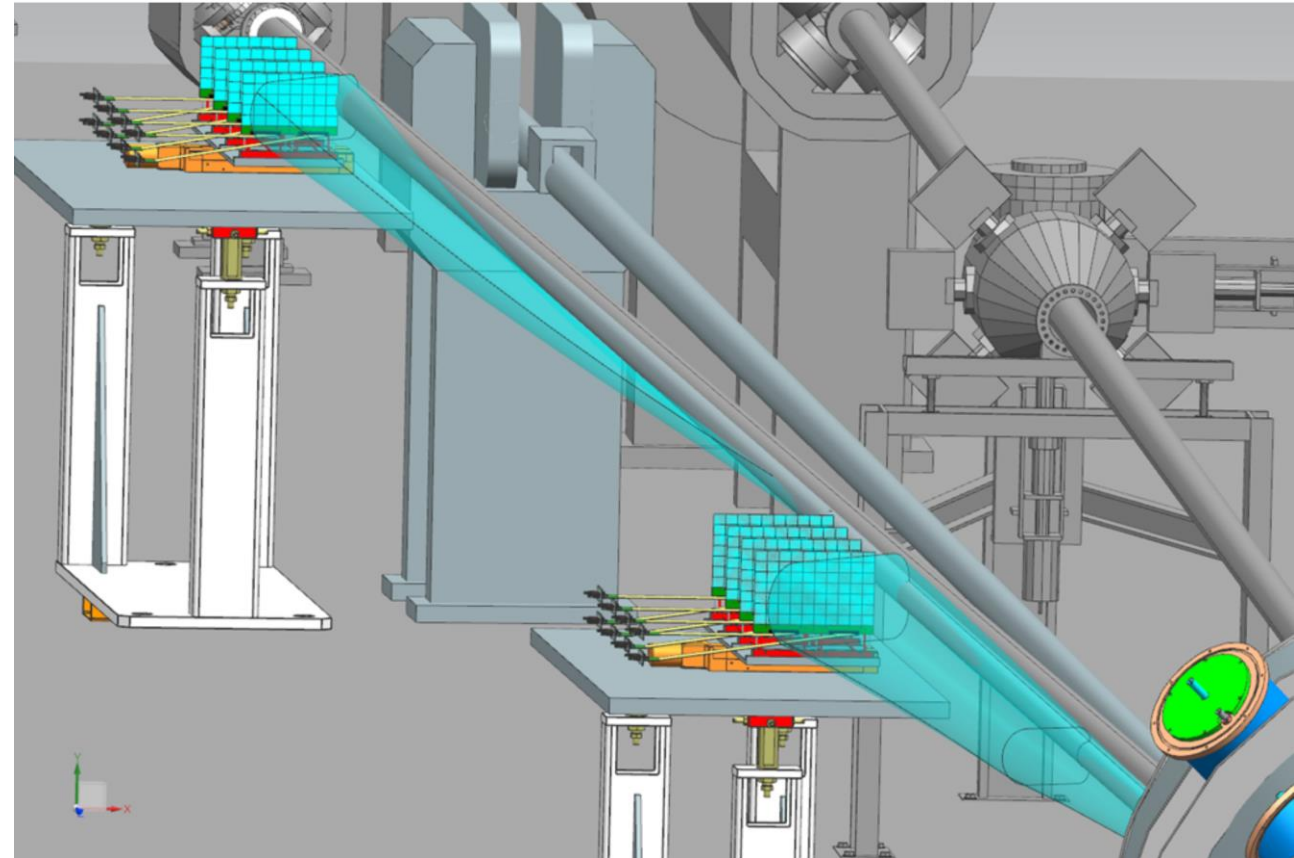
Simon Gardner – Technical Lead
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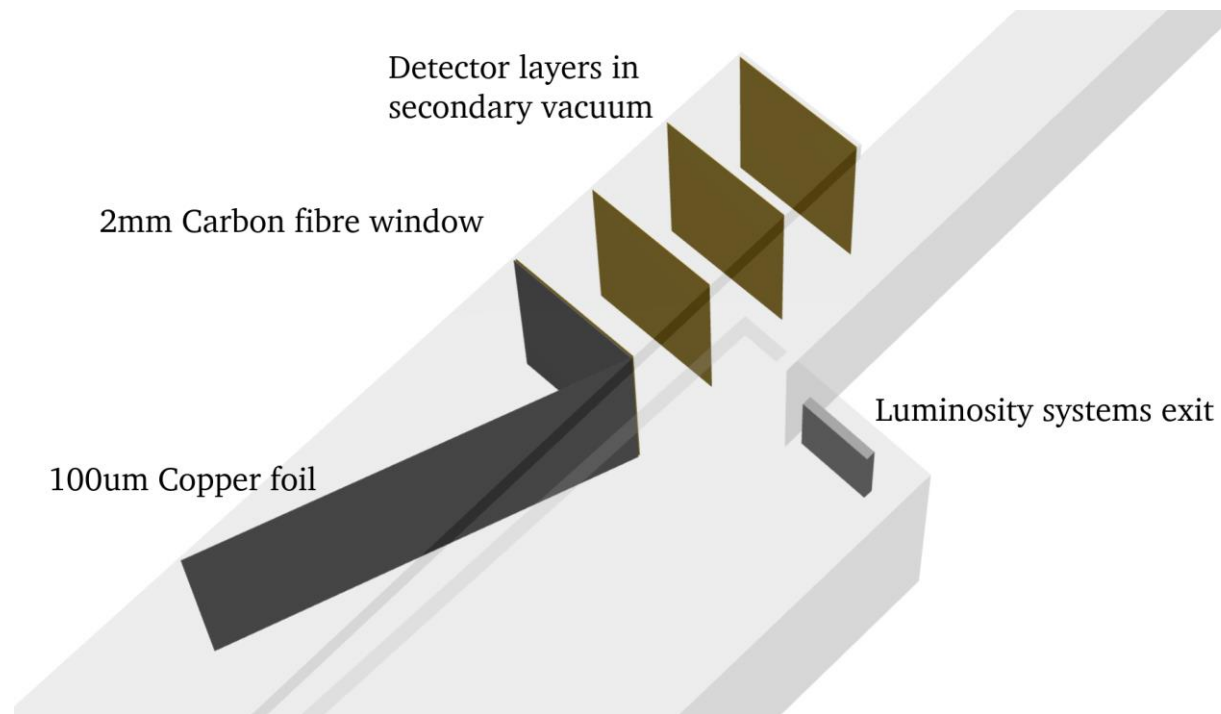
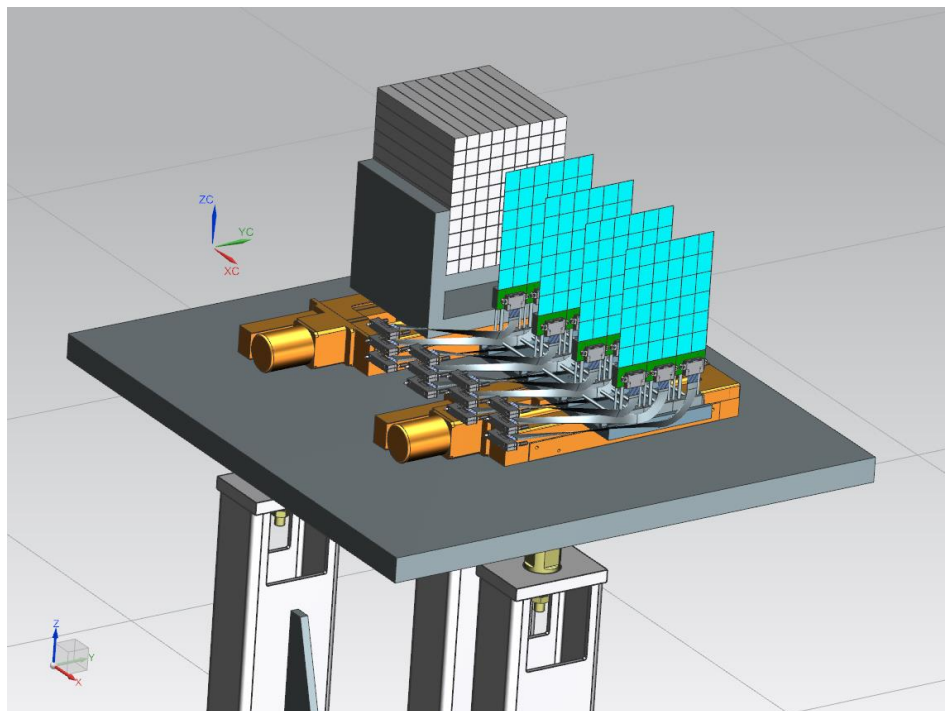
Low-Q2 Tagger – Current Design



| Low-Q2 Tagger | |
|------------------------|--------|
| Stations | 2 |
| Station 1 – z location | 18.4 m |
| Station 2 – z location | 37.0 m |



Low-Q2 Tagger – Current design concept



| Low-Q2 Station | |
|------------------------------------|-------|
| Tracking Layers | 4 |
| Layer Separation | 10 cm |
| Calorimeter | TBD |
| Optimisation still required | |

| Machine Integration | Purpose |
|--|---|
| Thin foil/mesh (e.g 100 um Copper at 70 degrees) | Reduce beam effects |
| Vacuum window (e.g. 2 mm Carbon/Beryllium) | Limit multiple scattering before detector. |
| Secondary vacuum | Potentially reduce required vacuum window thickness |
| Studies still required | |

- Reconstruction of initial electron momentum after passing through beamline magnets.
- Achievable resolutions fundamentally limited by beam divergence.
- Main detector challenge to separate out Bethe-Heitler/Bremsstrahlung background

