

# CONSIDERATIONS FOR BEAMSTRAHLUNG DUMP INTEGRATION

## FCC-ee Underground Structure Overview

## FCC-ee Machine tunnel Layout

## FCC-ee main and booster rings Layout

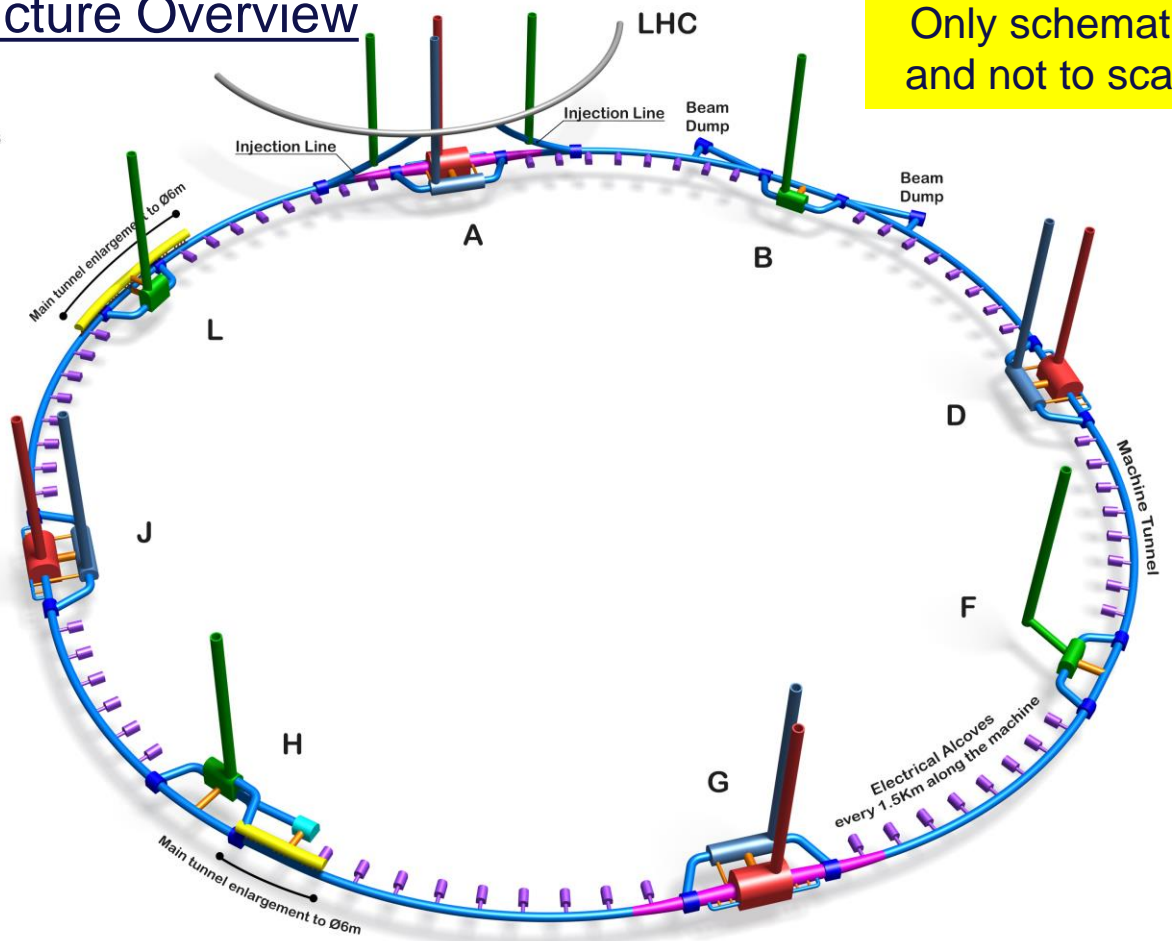
## FCC Underground structure point A

- *FCC Experiment underground structure*
- *FCC-ee wide machine tunnel (beamstrahlung dump integration)*

# FCC-ee Underground Structure Overview

Only schematic, and not to scale.

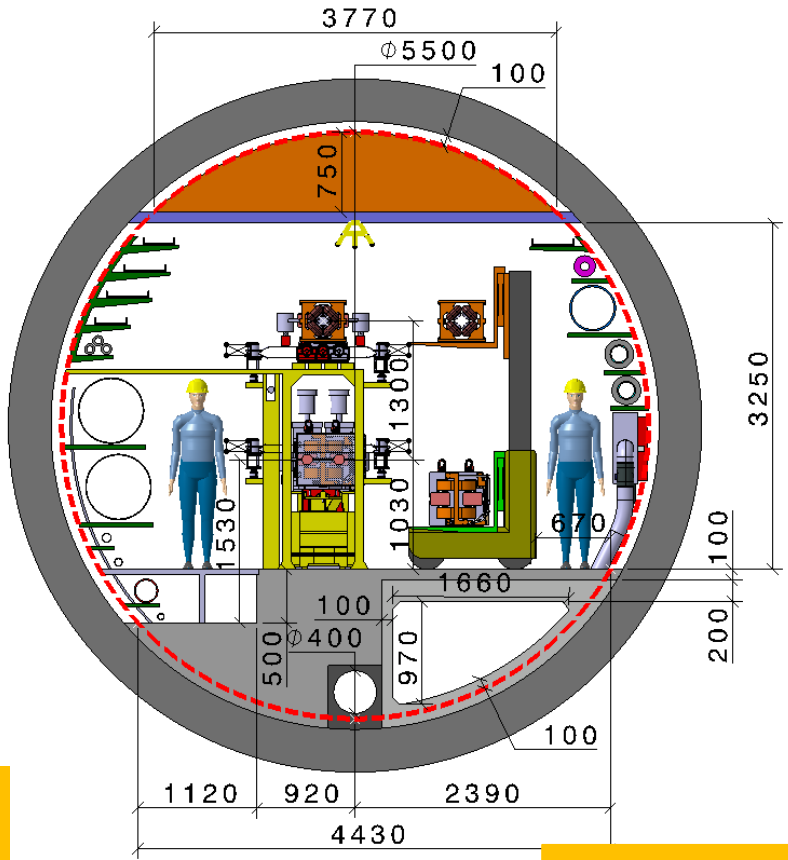
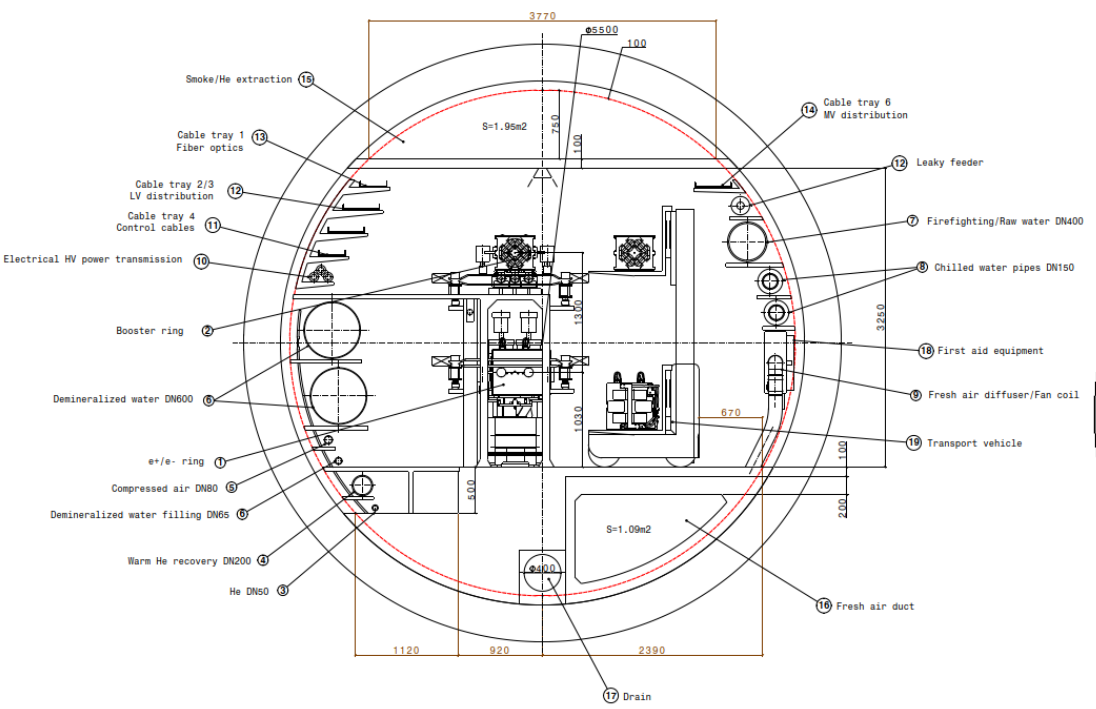
- █ FCC Tunnels
- █ Experimental points
- █ Access points
- █ Service caverns
- █ Connection tunnels
- █ Electrical alcoves
- █ Klystron galleries
- █ Tunnel widening
- █ Cryo cavern
- █ LHC



Courtesy A. Navascues Cornago

# Integration of FCC-ee machine elements (regular arc)

Machine tunnel 5.5m in diameter



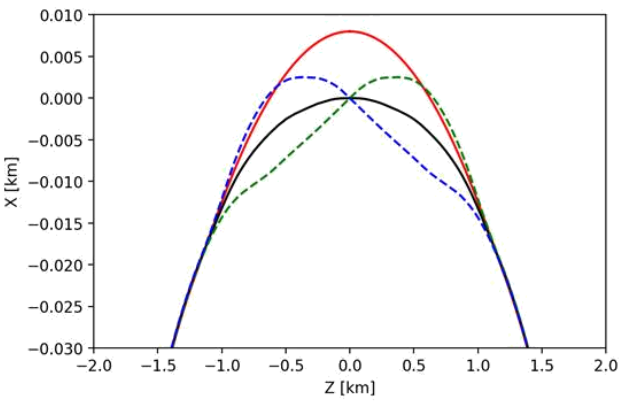
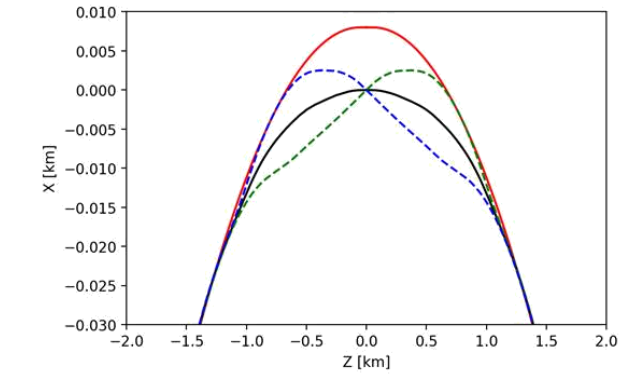
Main ring below of booster ring  
 Main ring and booster ring 1.3 m distant  
 Water distribution changed

Collider Center



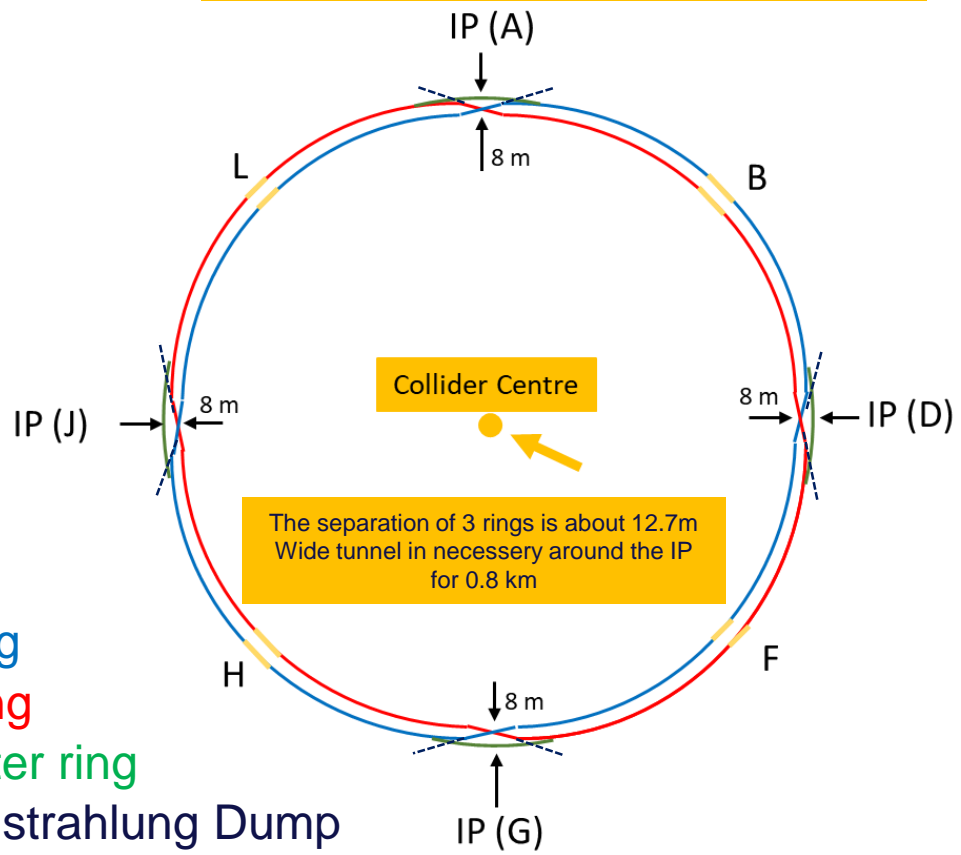
# FCC-ee main and booster rings Layout

Two different trajectories for booster ring

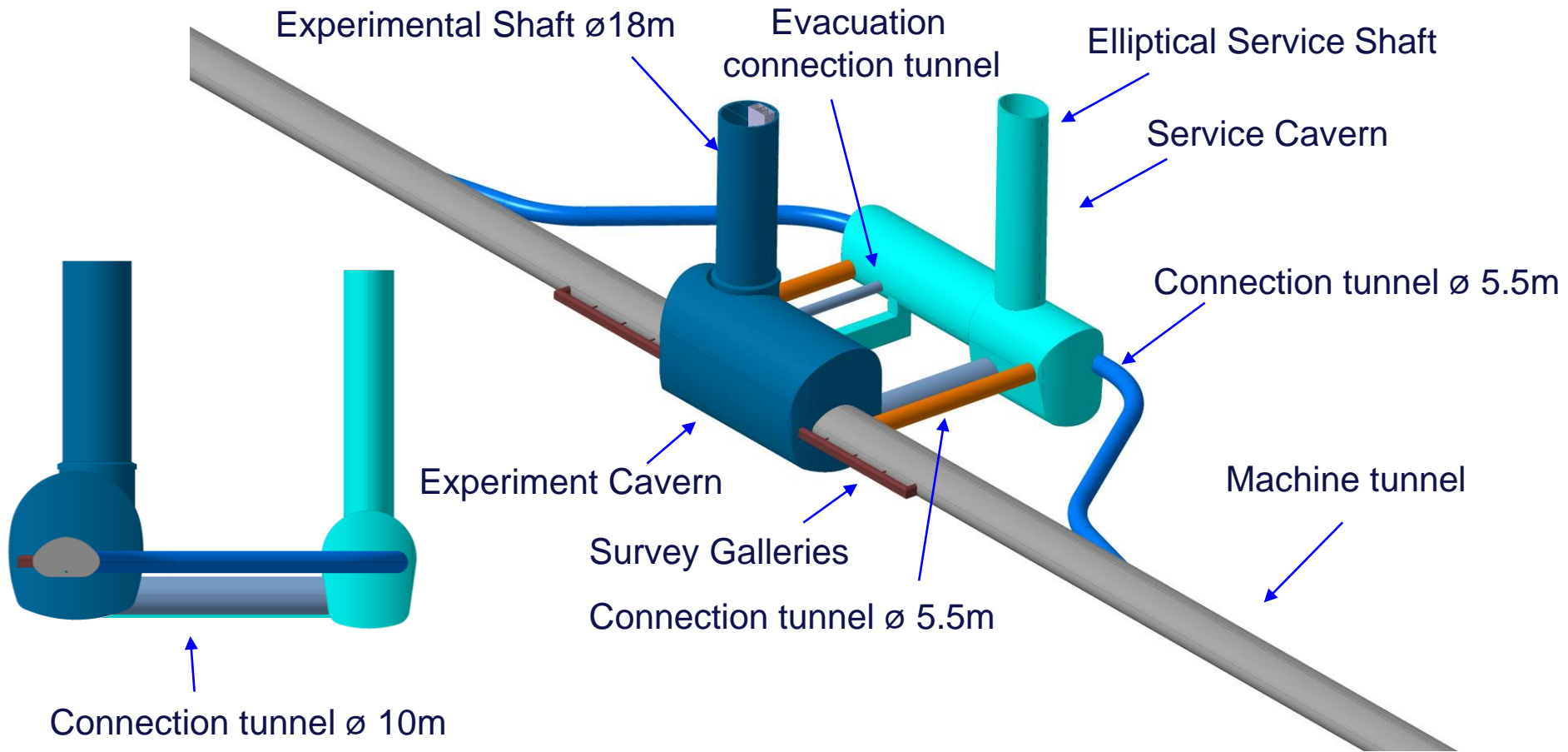


- E- ring
- E+ ring
- Booster ring
- - Beamstrahlung Dump

Courtesy K. Oide/ A. Chance



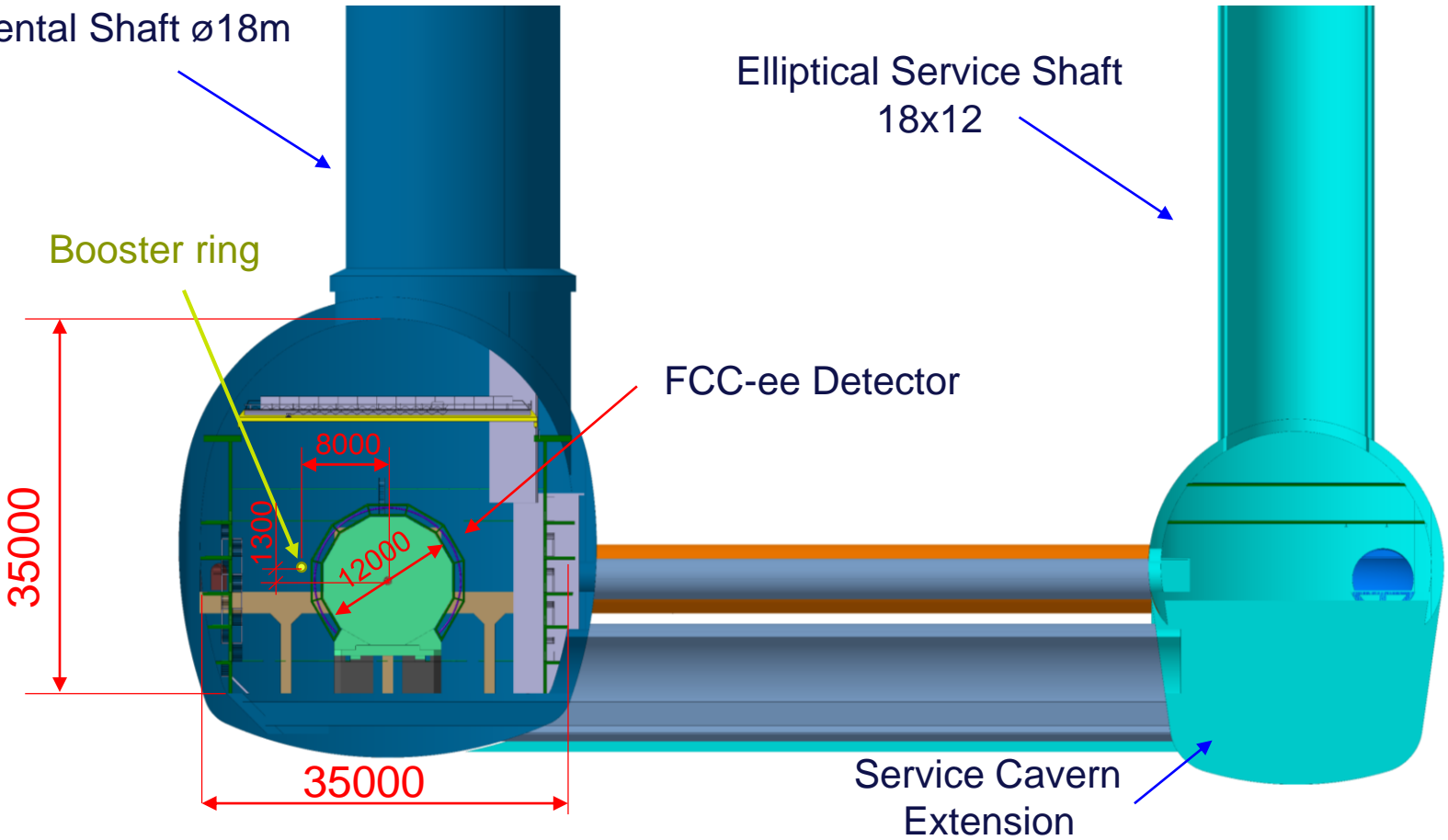
# FCC Experiment Underground Structure point A



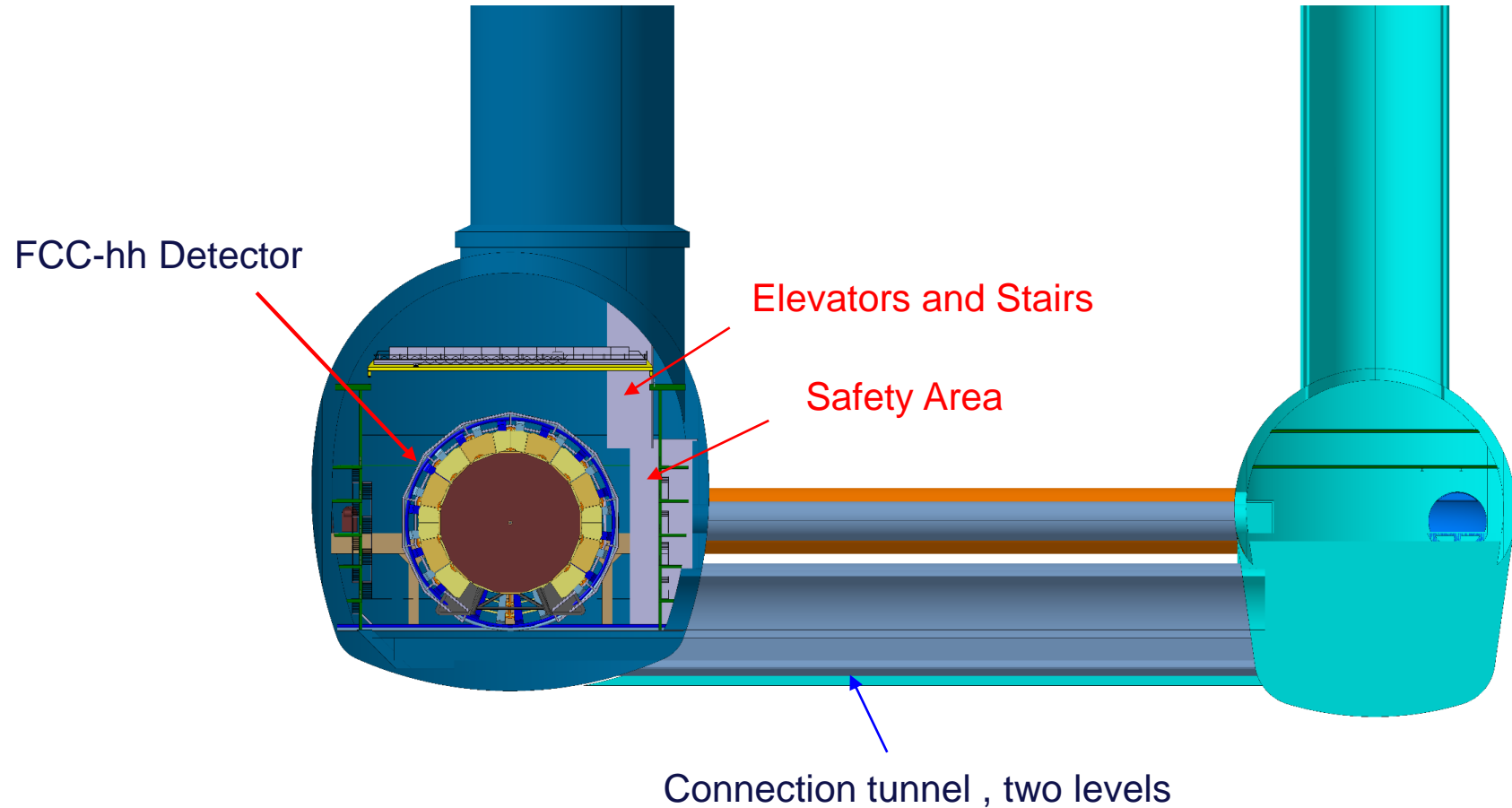
# FCC Experiment Underground Structure point A

Experimental Shaft  $\varnothing 18\text{m}$

Elliptical Service Shaft 18x12

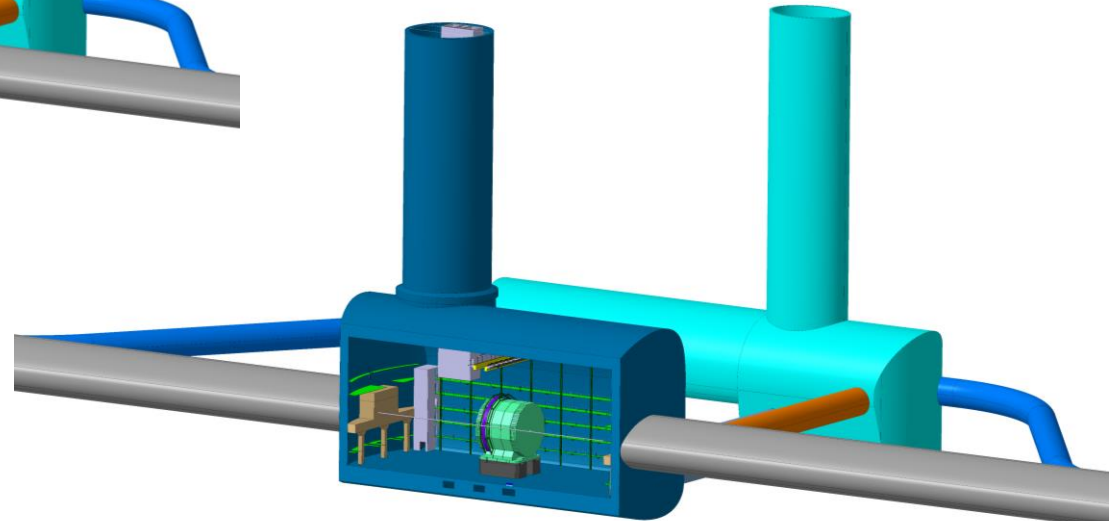
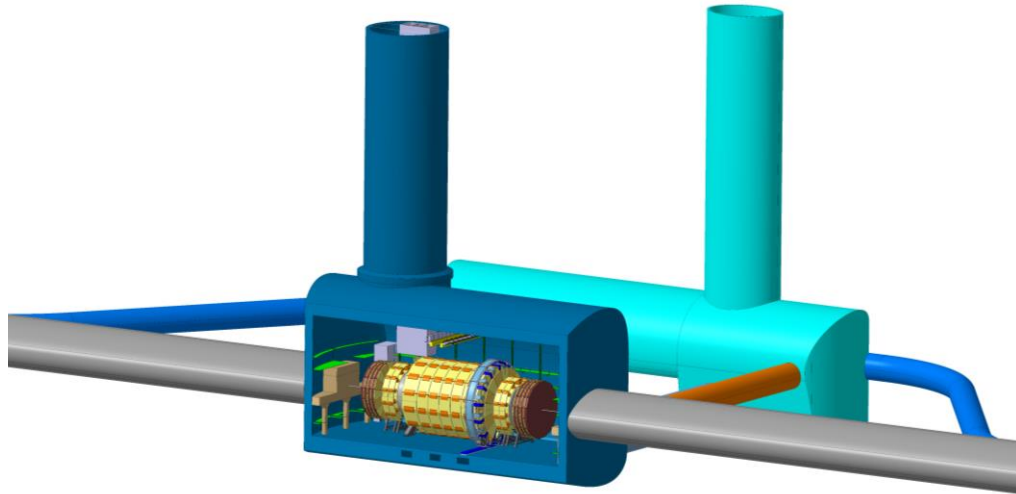


# FCC Experiment Underground Structure point A



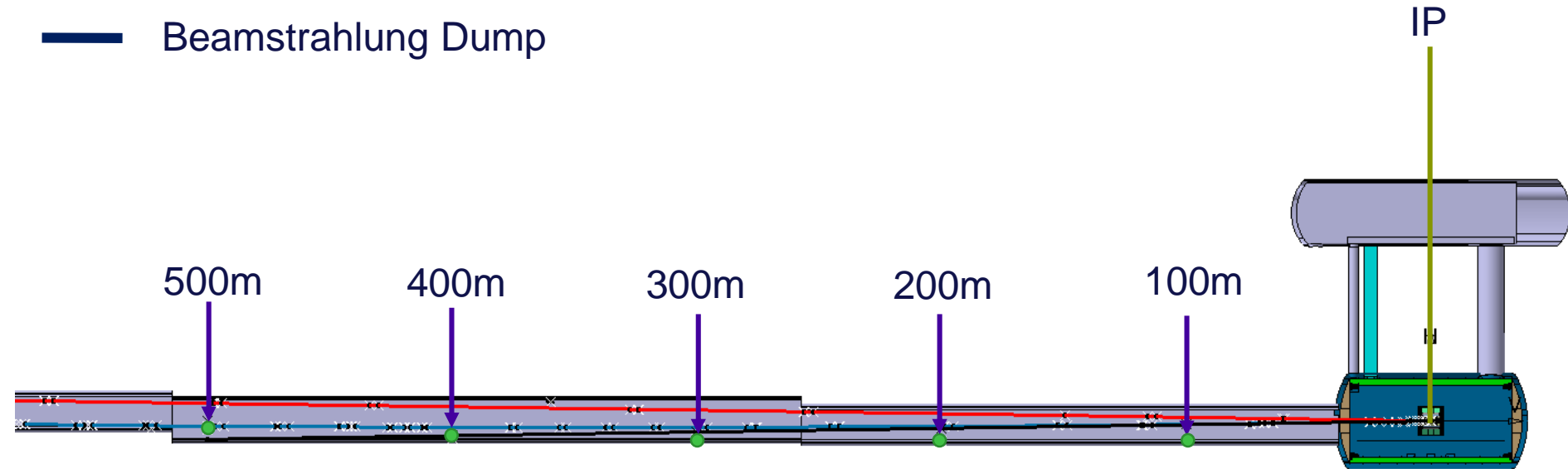


# FCC Experiment Underground Structure point A

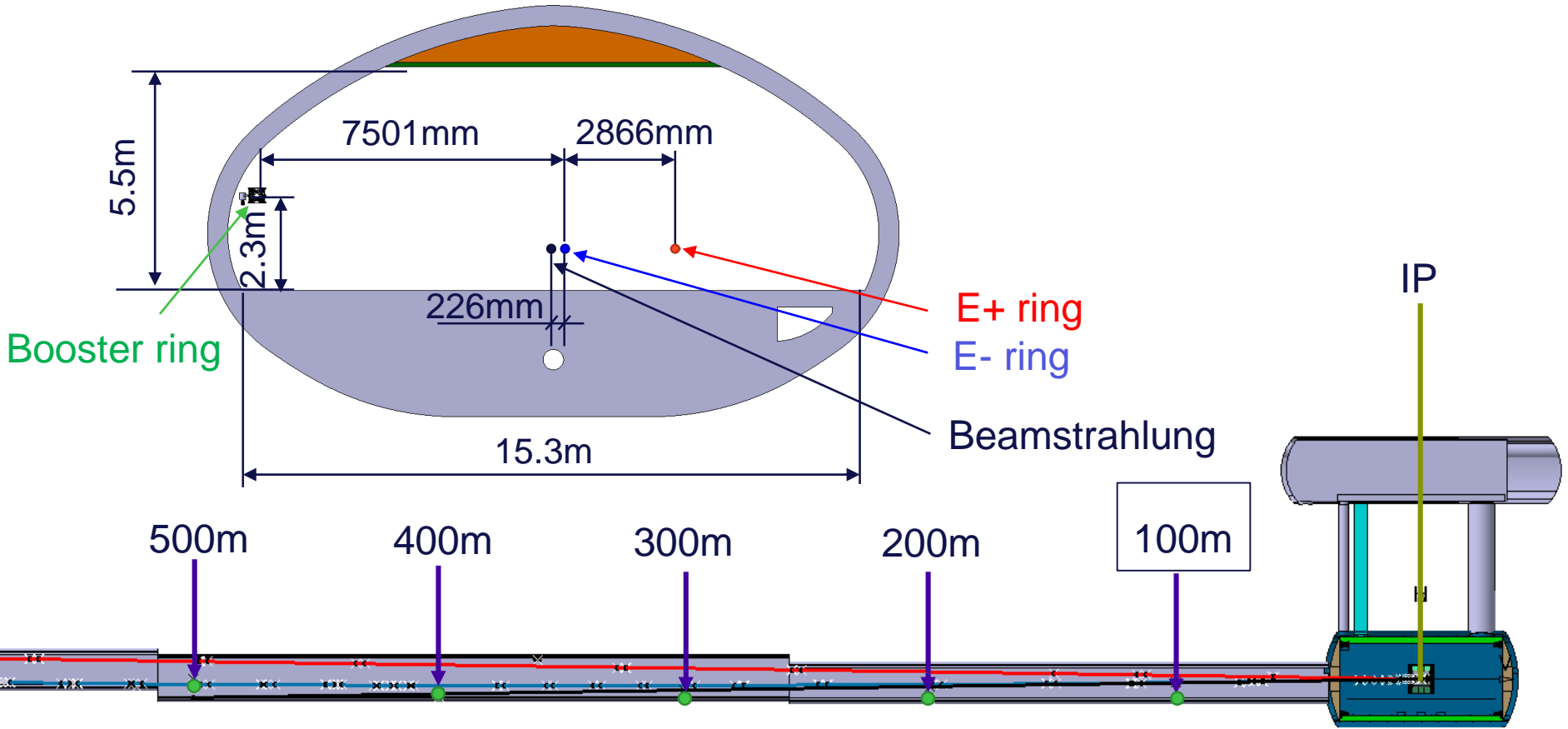


# FCC-ee beamstrahlung dump integration at point A

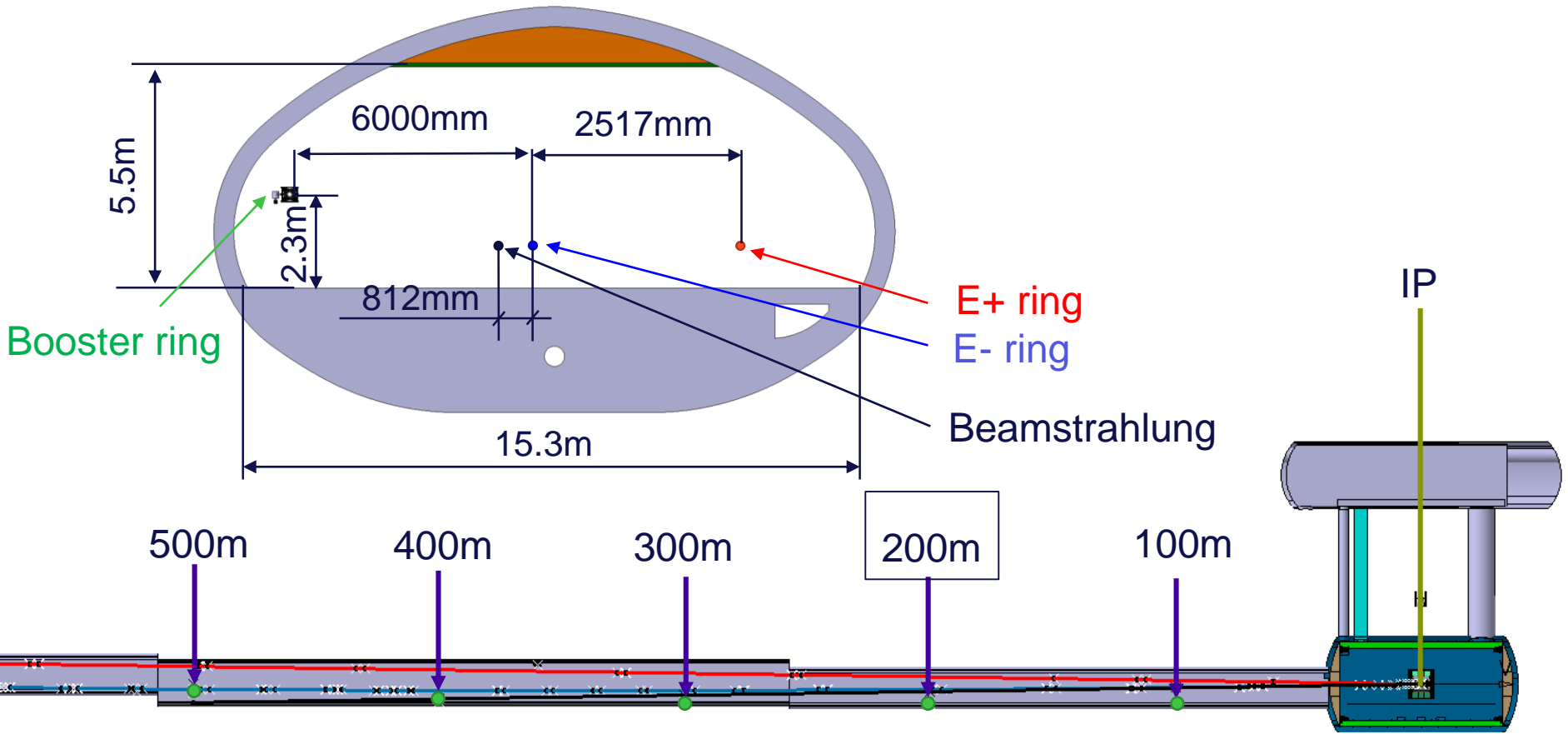
- E- ring
- E+ ring
- Booster ring
- Beamstrahlung Dump



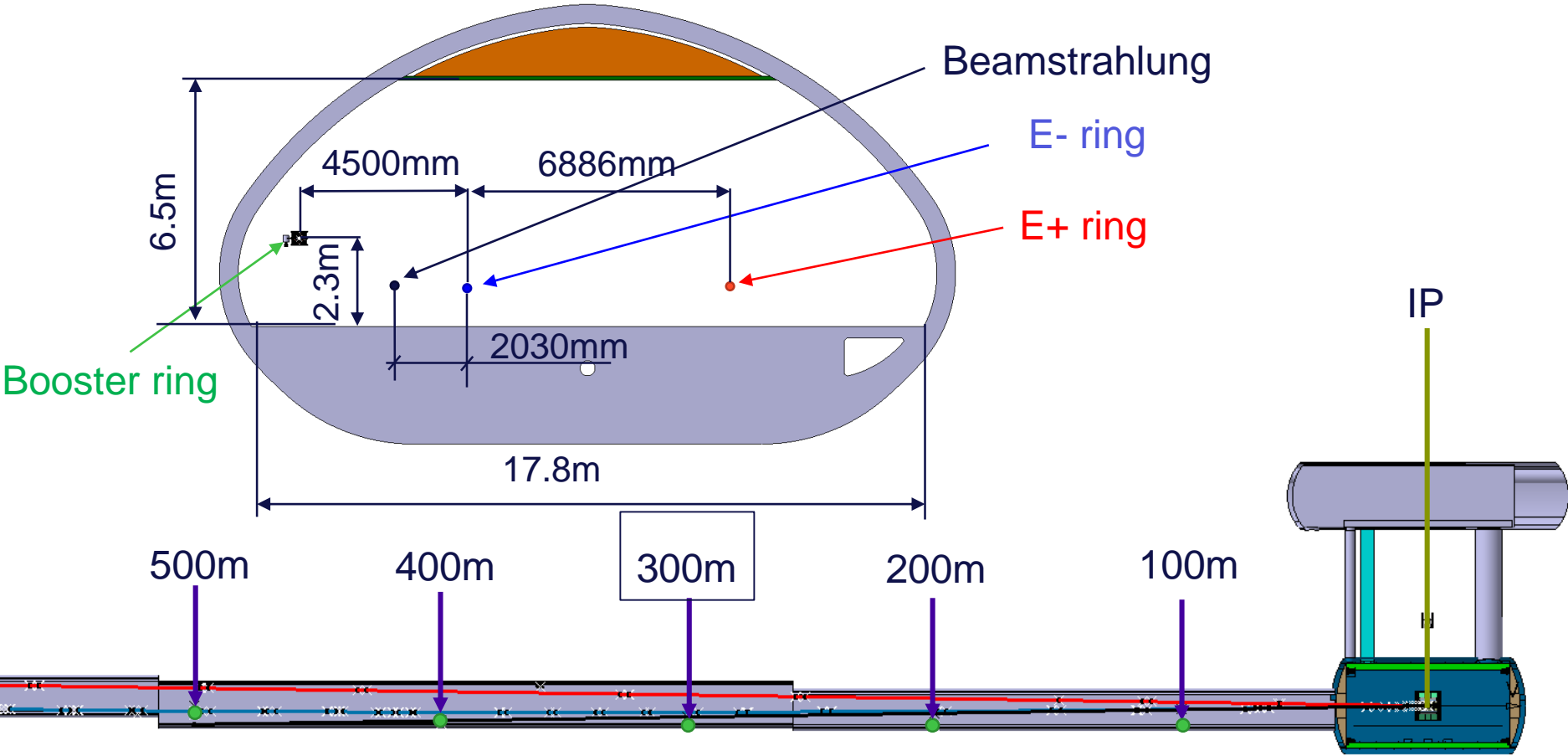
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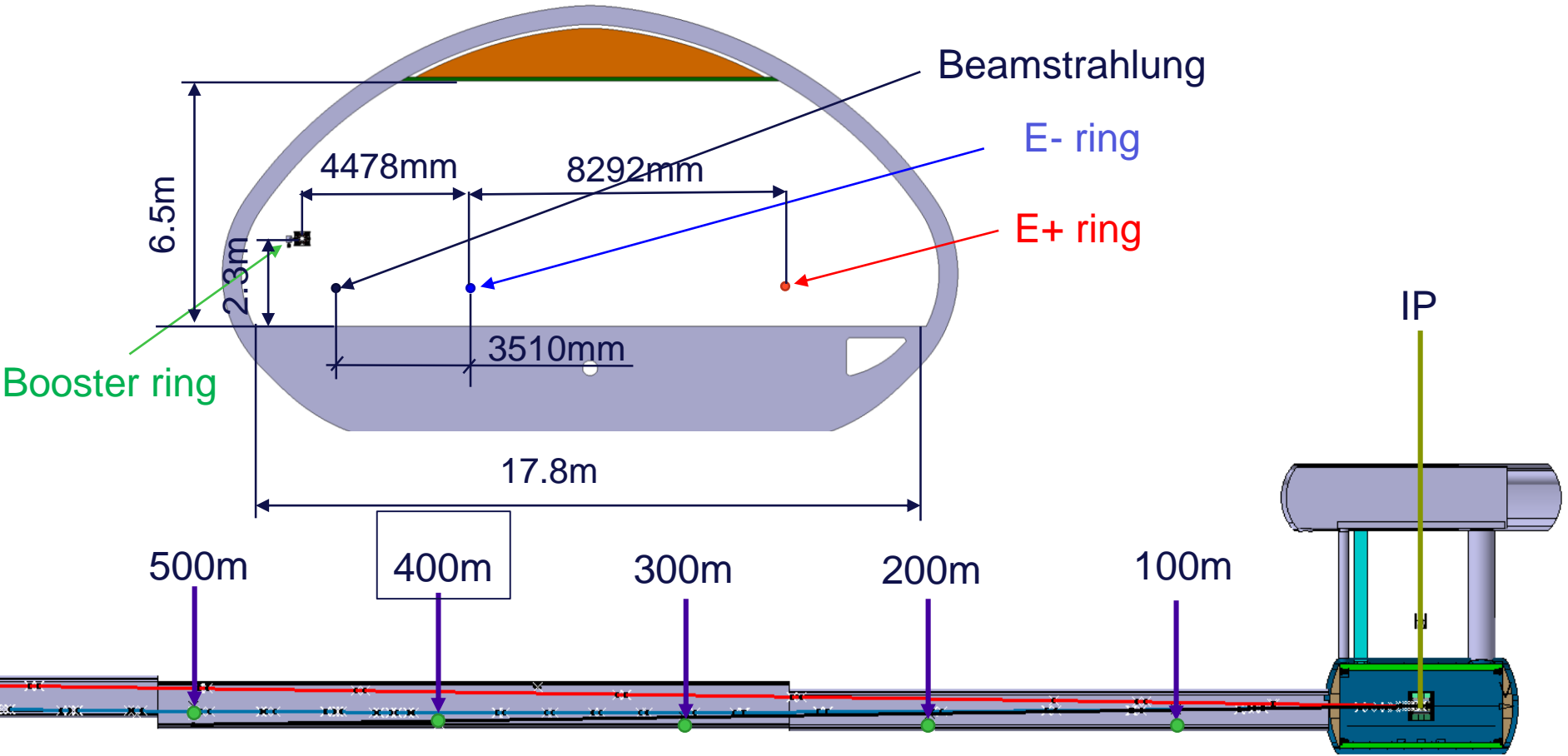
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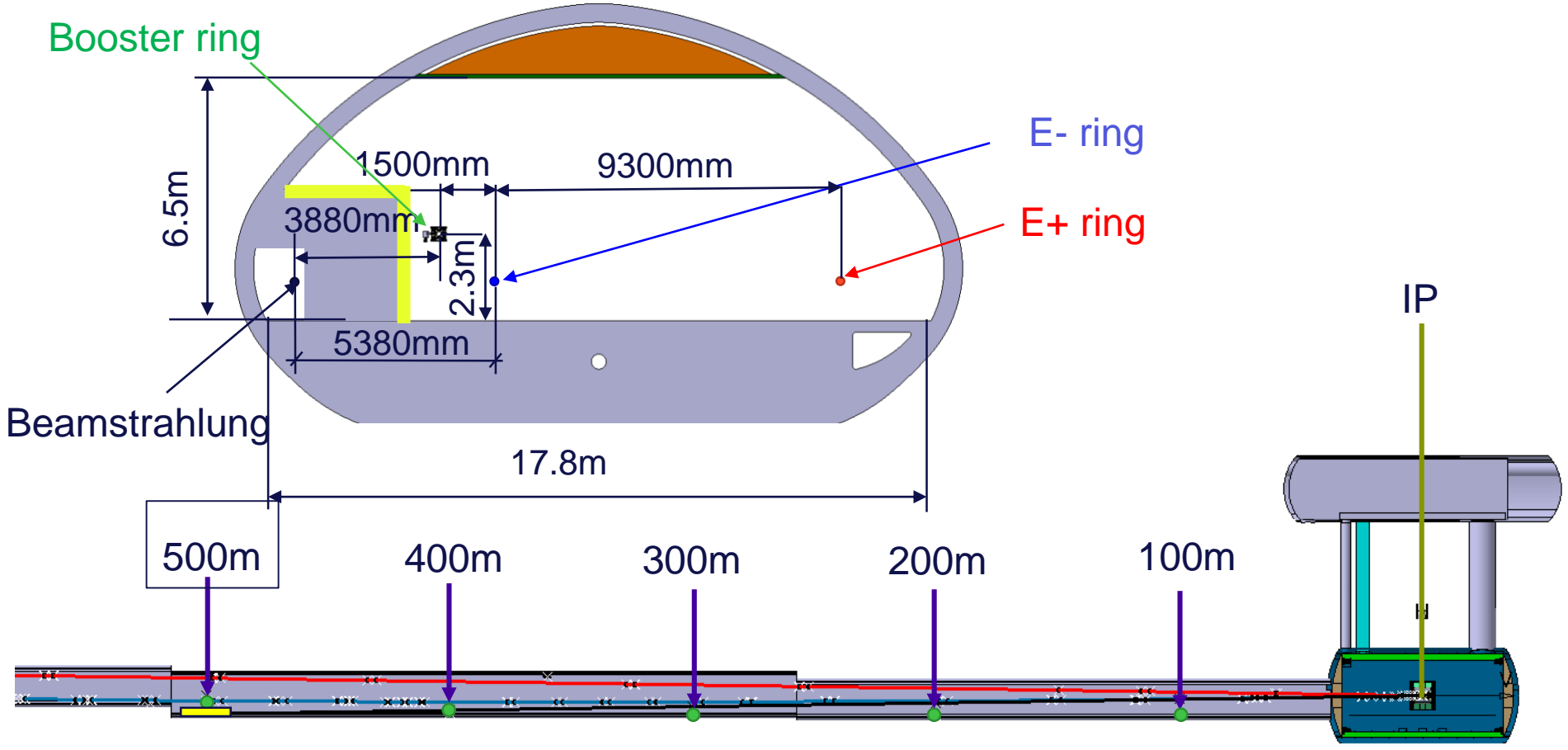
# FCC-ee beamstrahlung dump integration at point A



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# FCC-ee beamstrahlung dump integration at point A





Thank you  
for your attention.