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## **SRF cavities for crabbing at the Electron-Ion Collider**

*Thursday, 11 May 2023 11:00 (30 minutes)*

The Electron-Ion Collider requires several crabbing systems to facilitate head-on collisions between electron and proton beams in increasing the luminosity at the interaction point. One of the critical RF systems is the 197 MHz crabbing system that will be used in crabbing the proton beam. Many factors such as the low operating frequency, large transverse voltage requirement, tight longitudinal and transverse impedance thresholds, and limited beam line space makes the crabbing cavity design challenging. The RF-dipole cavity design is considered as one of the crabbing cavity options for the 197 MHz crabbing system. The cavity is designed including the higher-order mode couplers, fundamental power couplers and other ancillaries.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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