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EIC crab cavity LLRF specifications

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The EIC Crab Cavity Low-Level Radio Frequency system will have to regulate the crabbing and uncrabbing voltages, while also keeping their sum close to zero. The system will have to reduce the crab cavity impedance to prevent transverse instabilities. It will also have to maintain extremely low RF noise levels injected to the beam. This work presents an estimate of the required performance for each of these conditions and a summary of the specifications to achieve them. The significant tradeoffs between these requirements are also explored.

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Footnotes

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Yes

Primary author: MASTORIDIS, Themis (California Polytechnic State University)

Co-authors: LOE, Trevor (California Polytechnic State University); MAHVI, Paul (California Polytechnic State University); TOIVOLA, Matti (California Polytechnic State University)

Presenters: MASTORIDIS, Themis (California Polytechnic State University); TOIVOLA, Matti (California Polytechnic State University)

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