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## Reverse engineering on IPHI RFQ

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The Radio Frequency Quadrupole (RFQ) for the High-Intensity Photon Injector (IPHI) project has been designed and manufactured in the early 2000s. It is now operating at CEA Saclay since 2016 and accelerates a 100-mA continuous beam up to 3 MeV. It is a 6-meter-long, 3 segments vane RFQ, with 352.2 MHz operation frequency and non-constant voltage profile. From this RFQ, a lot of experience has been gained and, based on this feedback, other RFQ were designed at CEA, such as the one for SPIRAL2, LINAC4, or ESS, which are now operating. For maintenance purposes and to simulate the changes before we operate them, a new virtual 3D model has been developed. This model is simplified and may have the same RF performances as the existing one. This paper present this new model.

### Funding Agency

### Footnotes

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

Yes

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