

Status of multi objective Bayesian optimization of LIPAc's ECR ion source.

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Electron Cyclotron Resonance (ECR) ion sources are one of the most common first stage of many modern accelerators. Typically, their design include few free settable parameters to optimize performances during commissioning and for re-tuning after maintenance. The optimization of set point is often based on the know how of an expert. In this work we report the status of the multi objective Bayesian optimization of ECR ion source of the IFMIF Prototype Accelerator (LIPAc). Several adjustable parameters are tuned to find the best tradeoff of the average extracted beam current and its stability over time.

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