IPAC '23

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Automated RF-conditioning utilizing machine learning

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RF-Conditioning of a room temperature cavity is a long and resource intensive process. The need for constant supervision by experienced personal to avoid damage to the cavity and used equipment makes it a very expansive endeavor. To reduce the workload of the experimentalist, it was decided to develop a program utilizing machine learning, which, once finished, should have the probabilities to greatly reduce the need for constant supervision by human personal or even to conduct a full RF-conditioning on its own. After a training with existing data of already conducted conditioning of room temperature cavities and a virtual cavity, it is planned to improve and expand the program during the RF-conditioning of 15 CH-cavities, designated for the MYRRHA project, with similar properties. In this paper, the outline of the program, as well as the existing and planned goals shall be given.

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Footnotes

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Yes

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