

22ND INTERNATIONAL CONFERENCE ON RF SUPERCONDUCTIVITY

September 21-26, 2025

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Type: **Tutorials**

Tutorial 10: LLRF

Saturday 20 September 2025 11:00 (1h 30m)

In this tutorial an introduction to Low Level Radio Frequency (LLRF) is given. The tutorial is divided into two parts. First, after explaining the purpose of LLRF, an introduction to the theoretical background is given. This covers the modeling of accelerating RF cavities, the deduction of fundamental equations, and short peaks into signal processing and controller theory. This part also includes a demo with a cavity simulator, to give the listener a better feeling, on how a basic system behaves. The second part of the lecture focuses on the architecture of LLRF systems, actual applications, and real-world examples. At the end of the tutorial, the listener should have a good idea what LLRF is about and what path to follow, if the listener wants to get involved with this topic.

I have read and accept the Privacy Policy Statement

Yes

Footnotes

Funding Agency

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