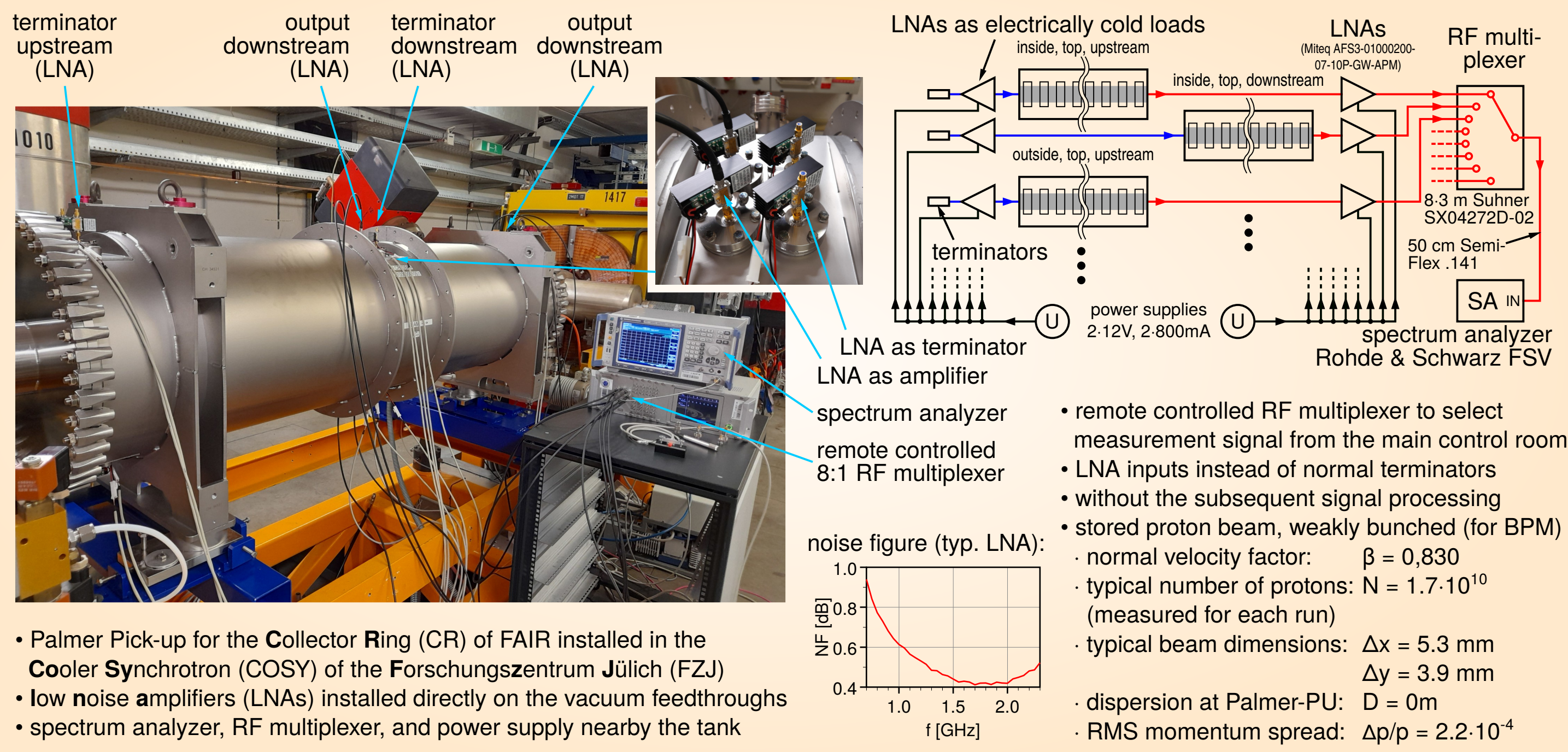


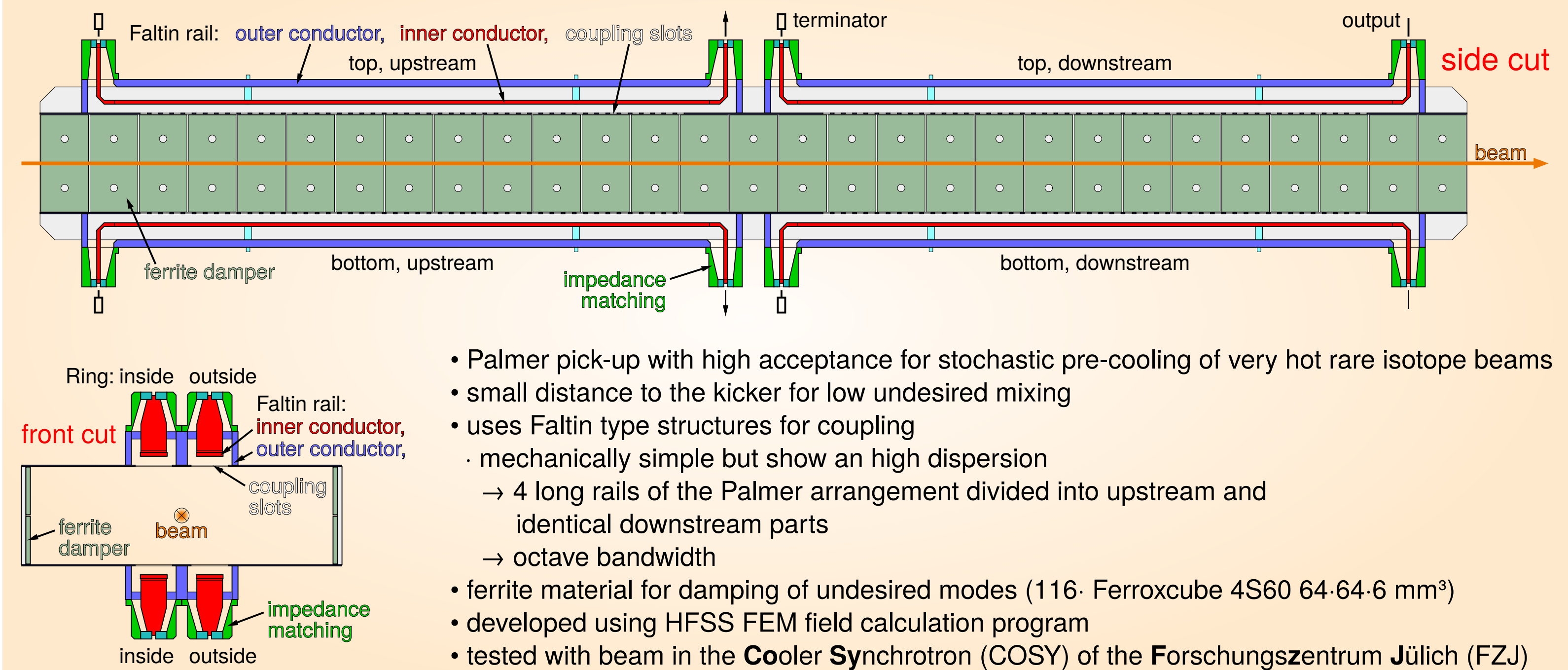
Beam Measurements of a Palmer Pick-up for the Collector Ring of FAIR

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(GSI, Darmstadt, Germany)

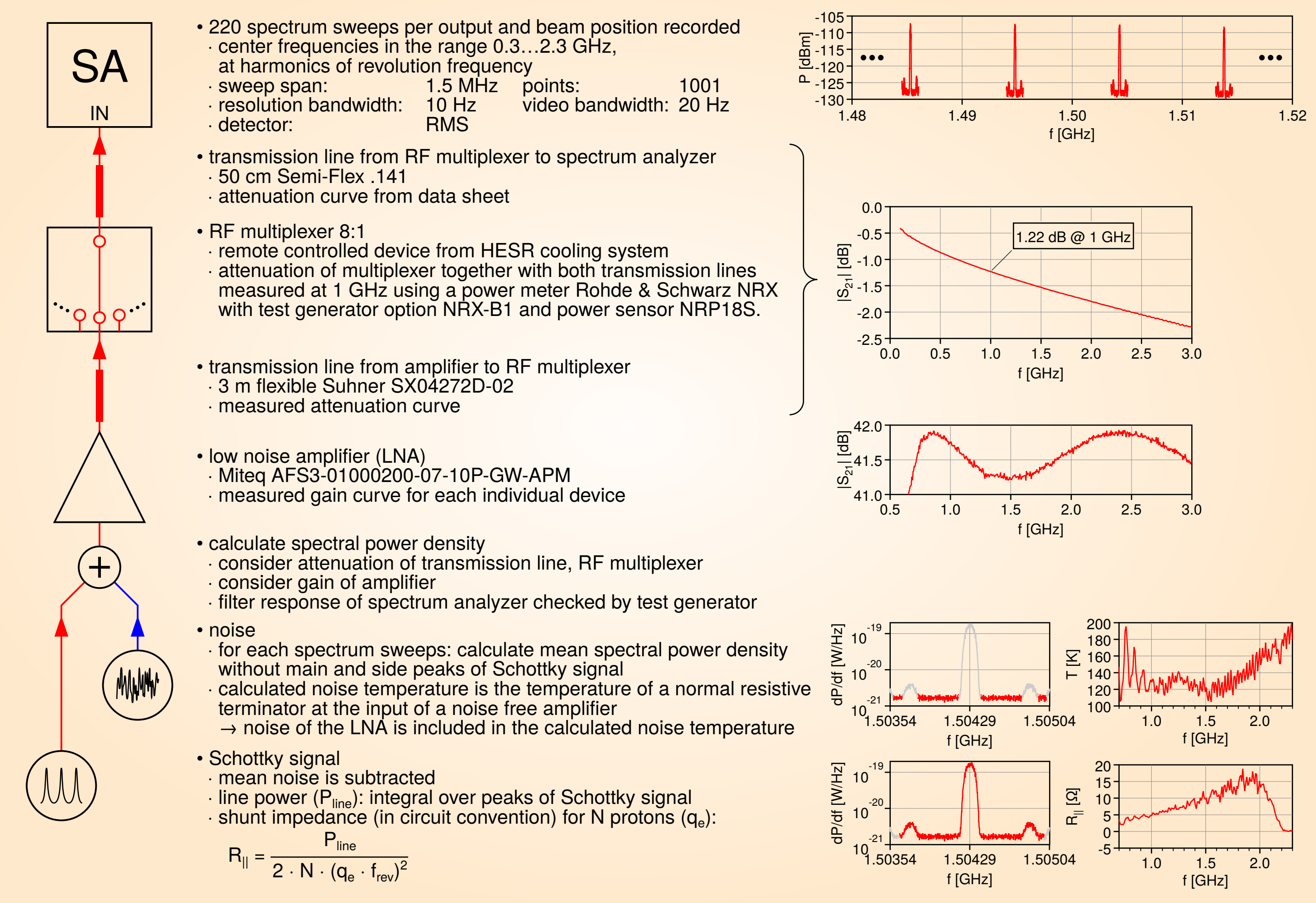
Measurement Setup at the Cooler Synchrotron (COSY) of FZJ



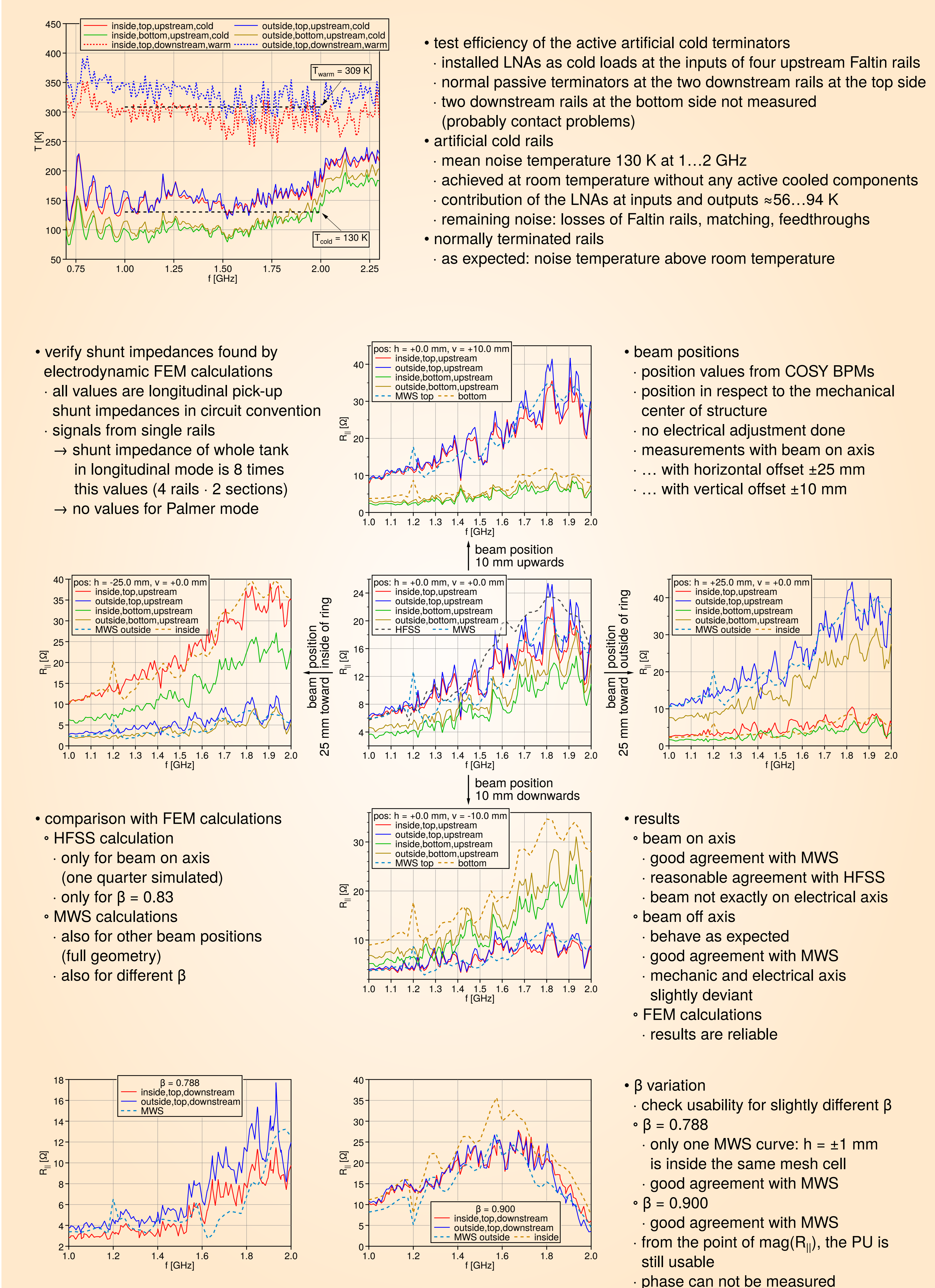
Palmer Pick-up for the Collector Ring (CR) of FAIR



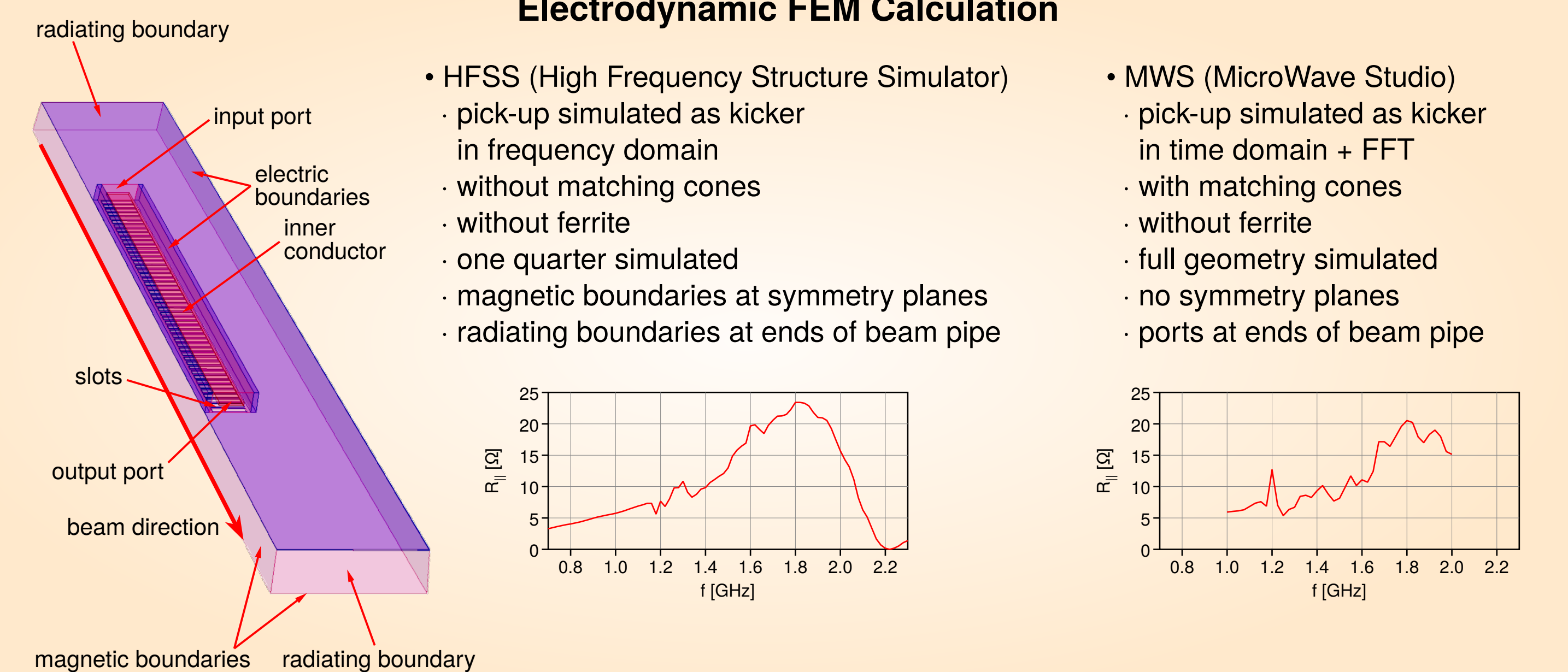
Measurement and Data Analysis



Results



Electrodynamic FEM Calculation



Conclusion

- The Palmer pick-up for the Collector Ring (CR) of the future FAIR facility has been tested successfully in the Cooler Synchrotron (COSY) at the Forschungszentrum Jülich (FZJ).
- The presented measurement results show a good agreement with electromagnetic FEM simulations (HFSS and Microwave Studio).
- The LNAs instead of resistors as artificial cold loads works as expected. We have achieved a mean noise temperature of 130 K in the frequency range 1...2 GHz at room temperature.

Acknowledgement

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