



New comer presentation

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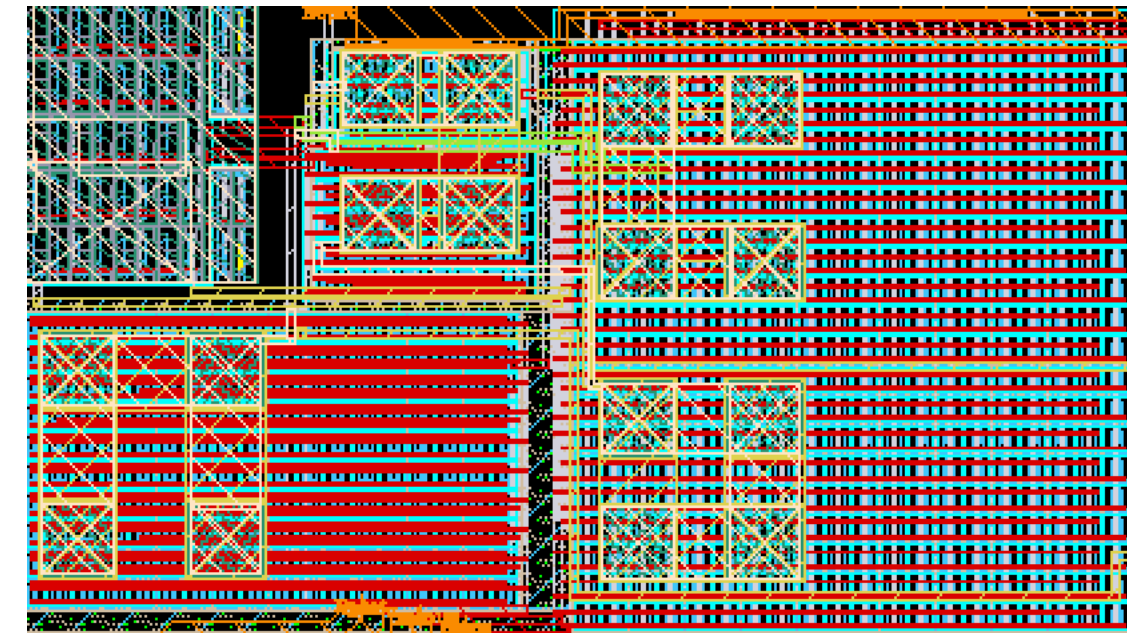


About myself...

- Bachelor 2018-2021 in USTH, Hanoi, Vietnam
- Master in 2021-2023 in USTH, Hanoi, Vietnam
- PhD starts from Dec 2023 in APC

Topic

- Simulation of noise and image albertation for ground-based observatory (Bachelor's thesis - Vn 2021)
- Design SiGe on-chip thermometer with offset nulling and differential readout (Master thesis - APC, Paris, France)

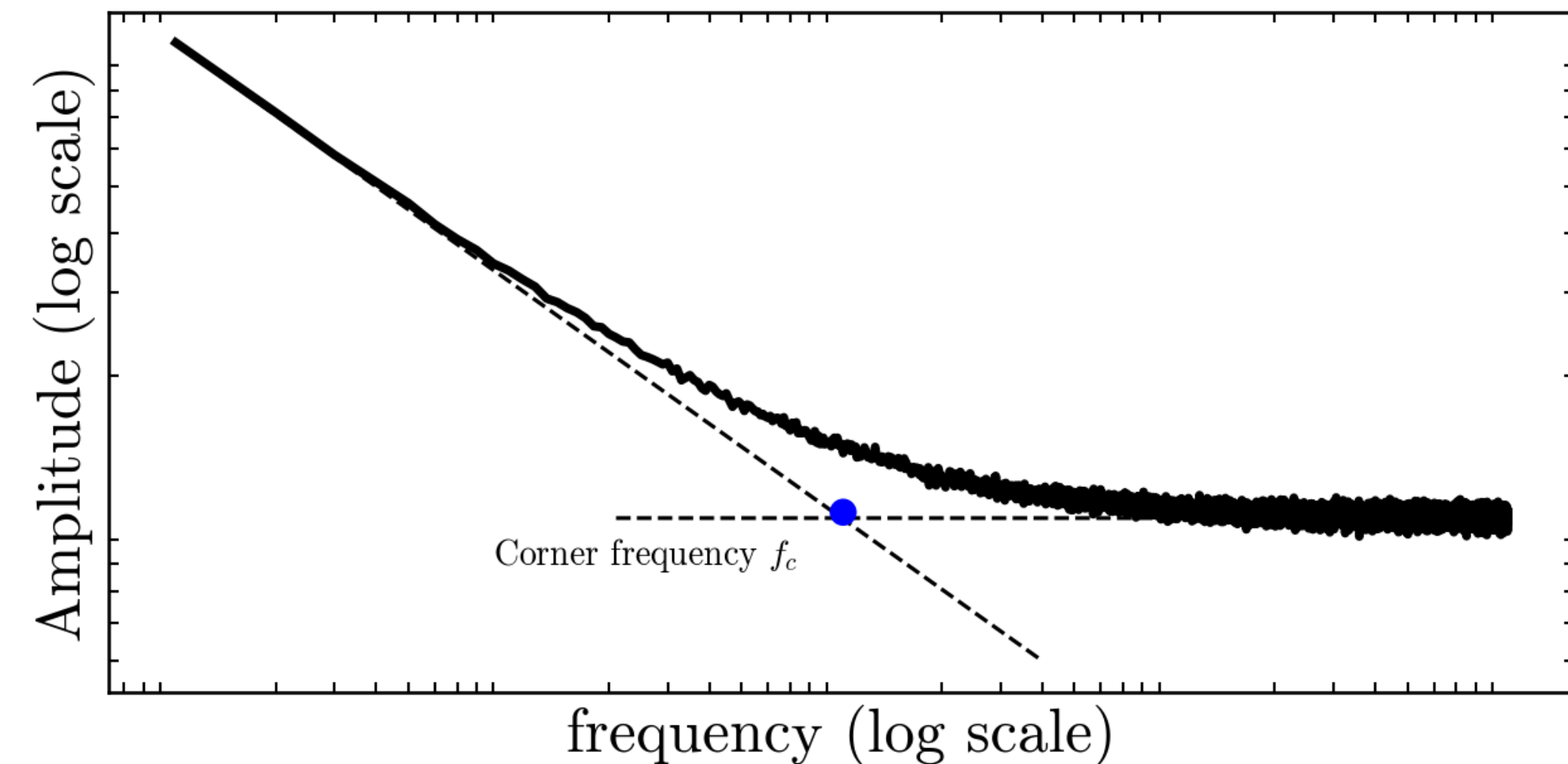
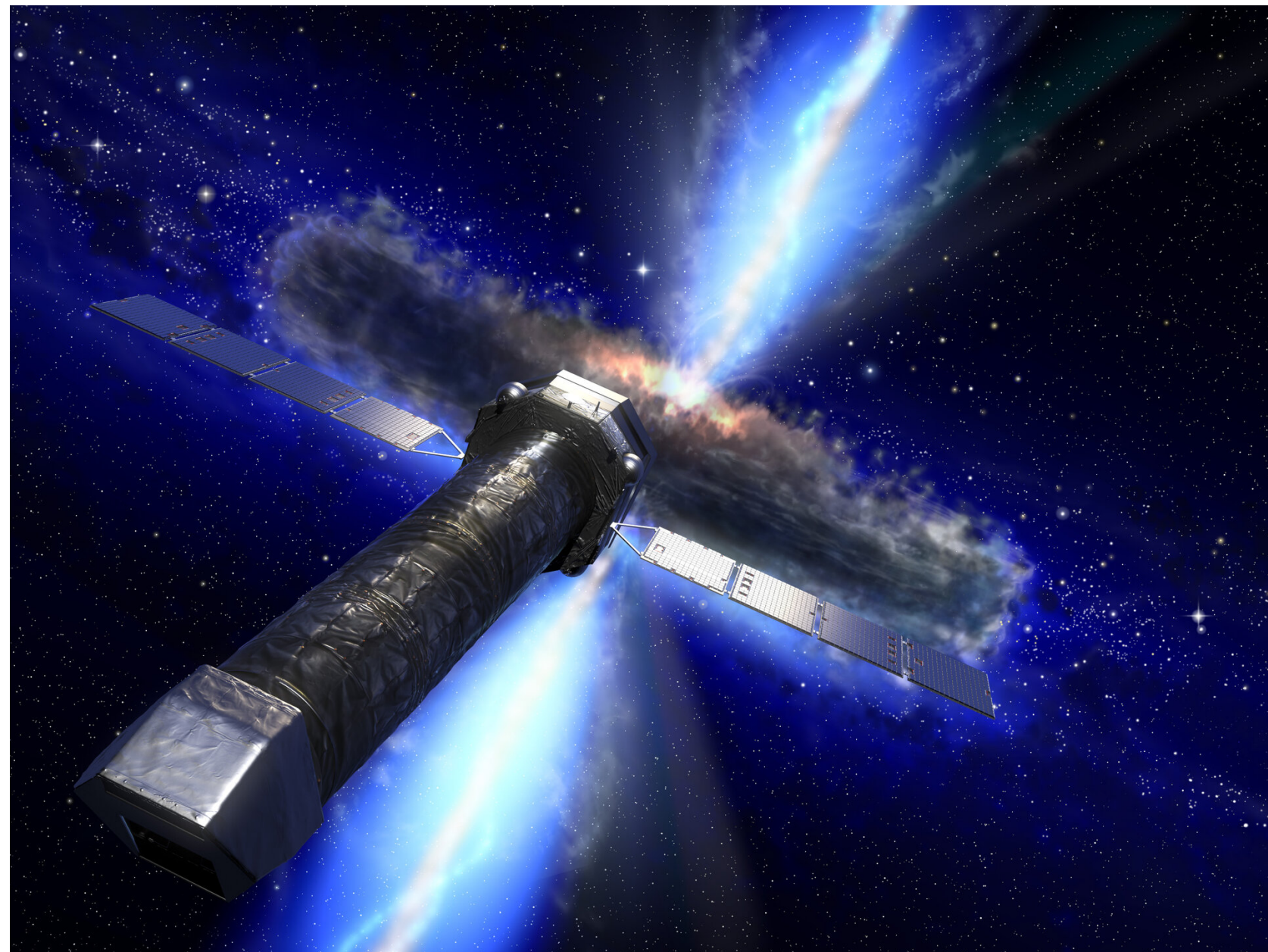


Layout view of the on-chip thermometer



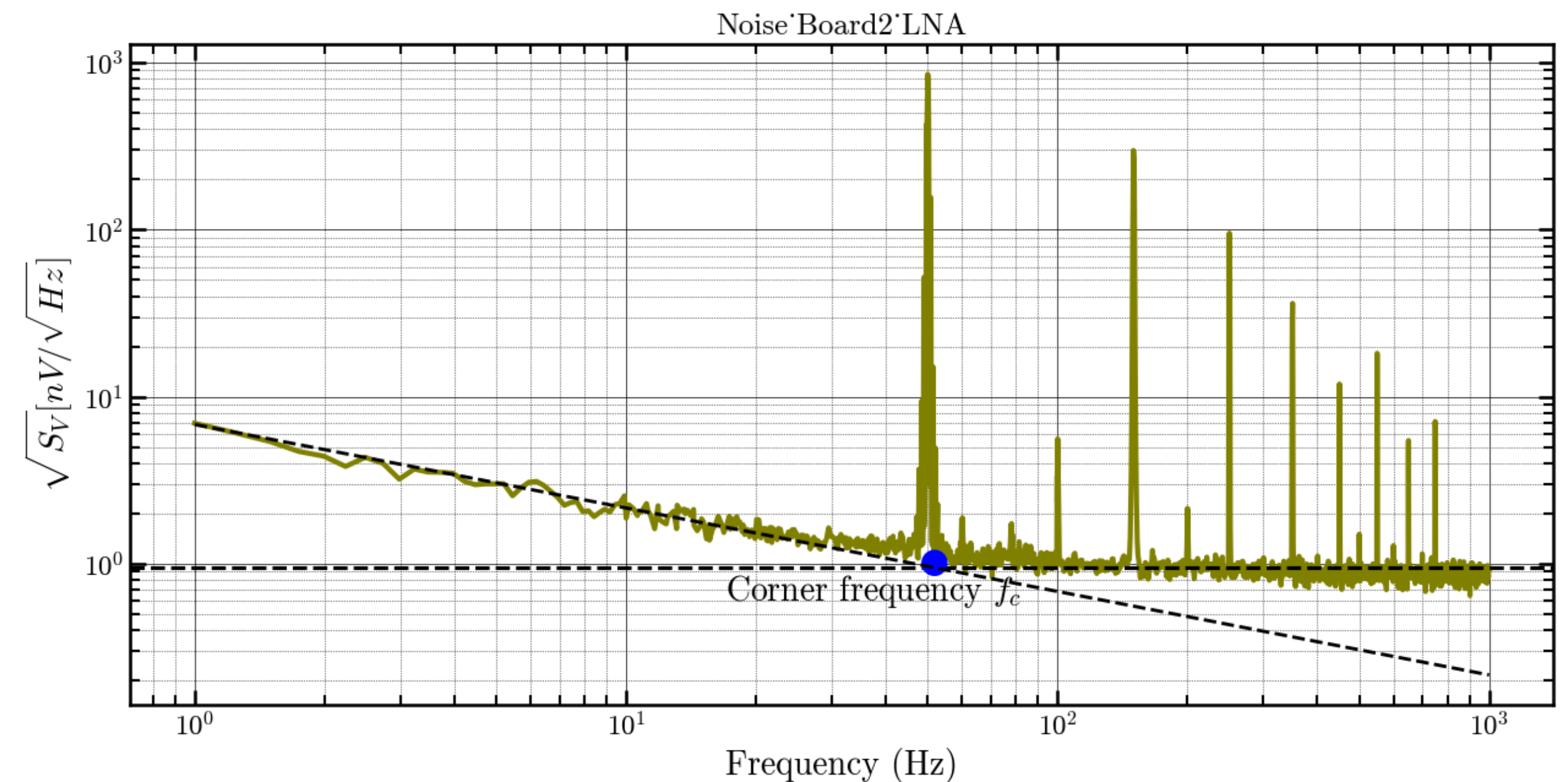
My PhD's project

- Flicker noise impact and design methodology in SiGe BiCMOS integrated front-end electronics for astronomical observations



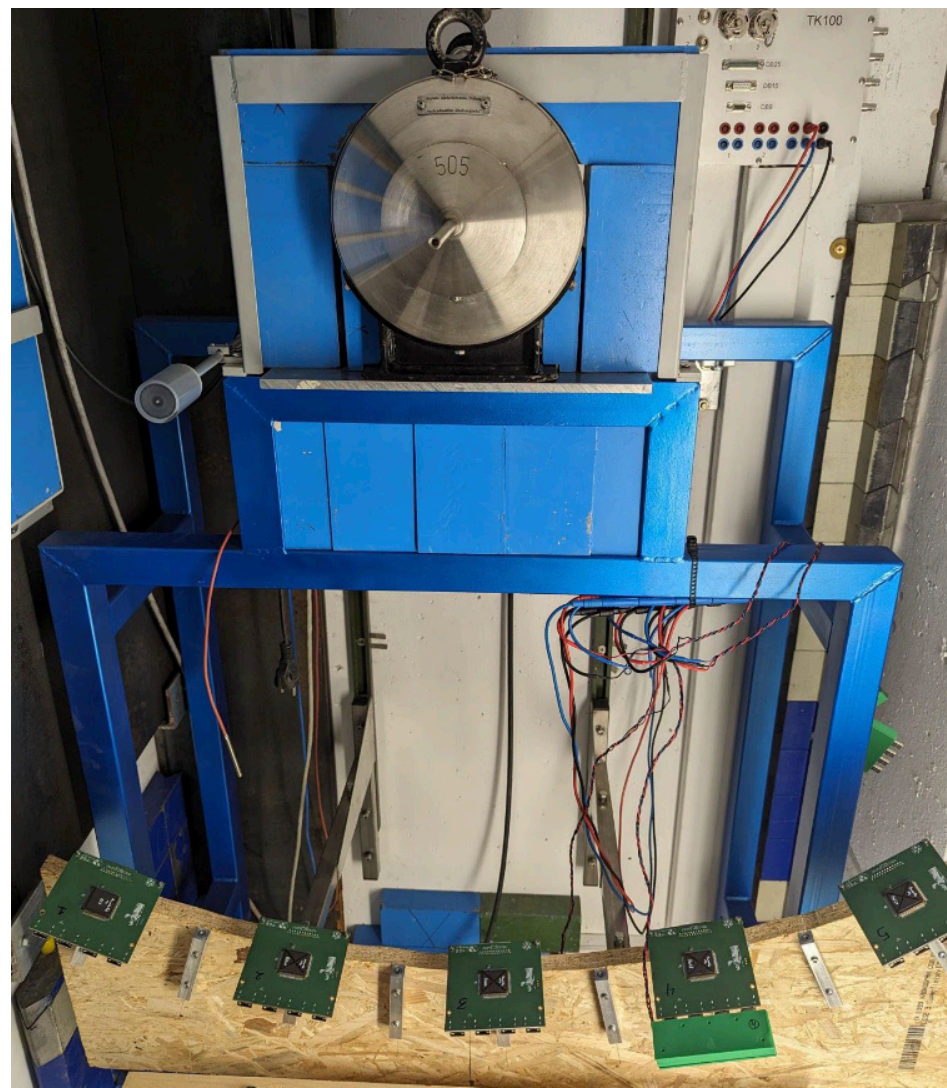
Flicker noise in readout electronics

- Dominant at low frequency with power spectral density $S_v \propto \frac{1}{f}$
- Reduce the precision of signal
- Difficult to measure at very low frequency
- Highly dependent on technology and fabrication process

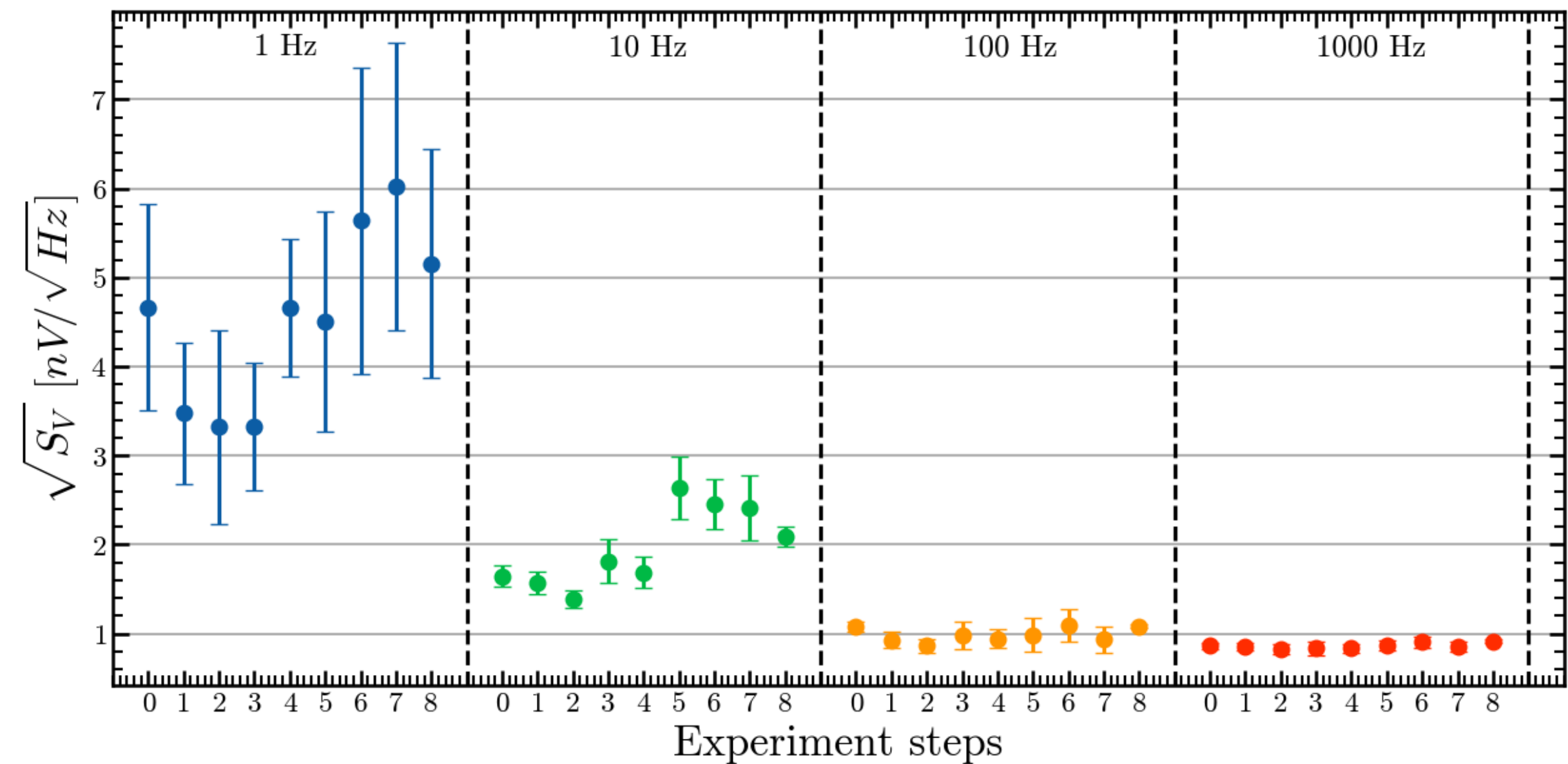


Activity

- Study the impact of Flicker noise in the detection chain
- Analysing the evolution of flicker noise under the impact of space radiation



ASICs_v4 under irradiate of 60Co source



Analysis results showing the changing of noise spectral density under the total ionising dose

**Thanks for listening
It's my pleasure to meet you!!!**

Bello!

