

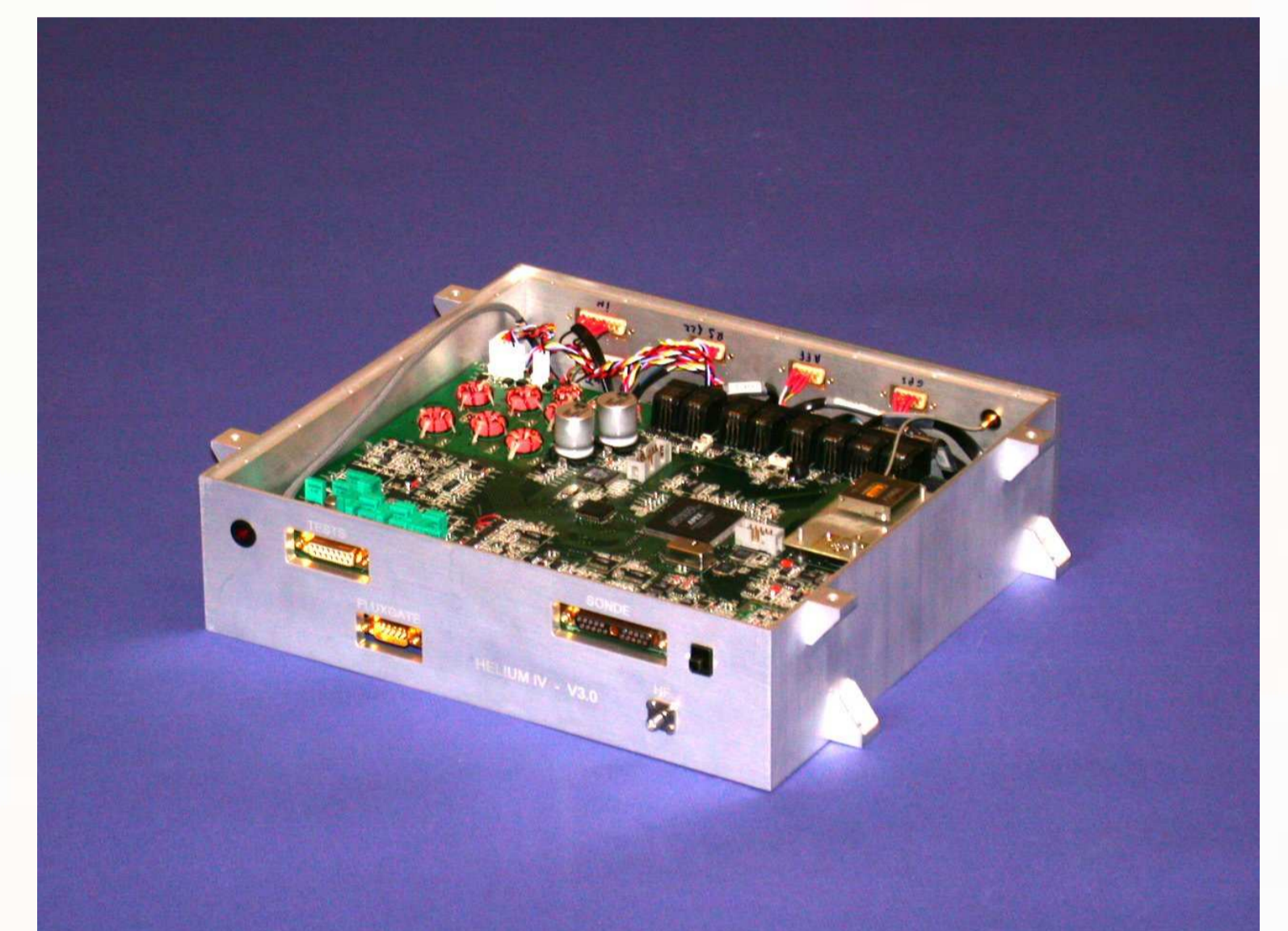
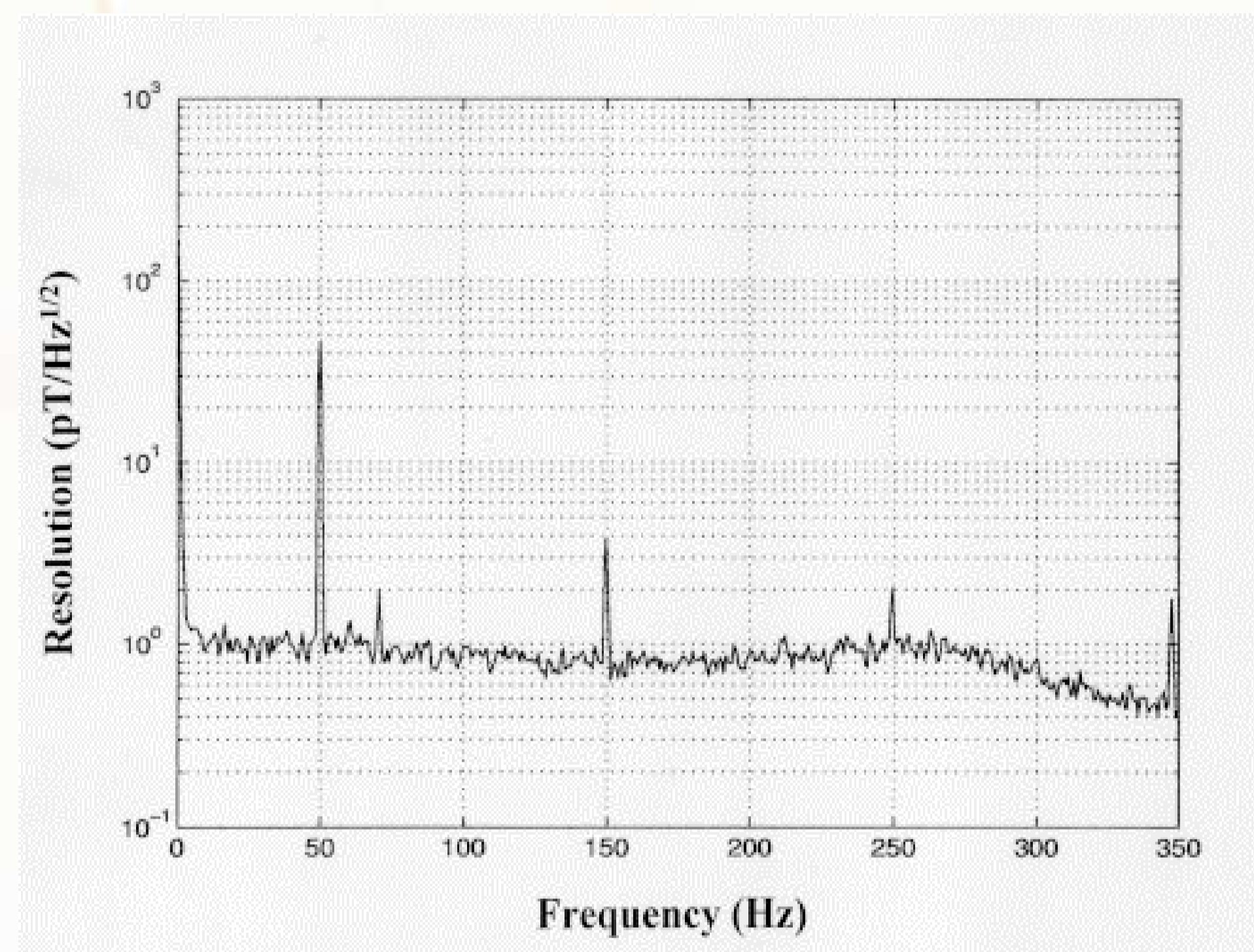
The LETI/CNES Absolute Scalar Magnetometer for SWARM

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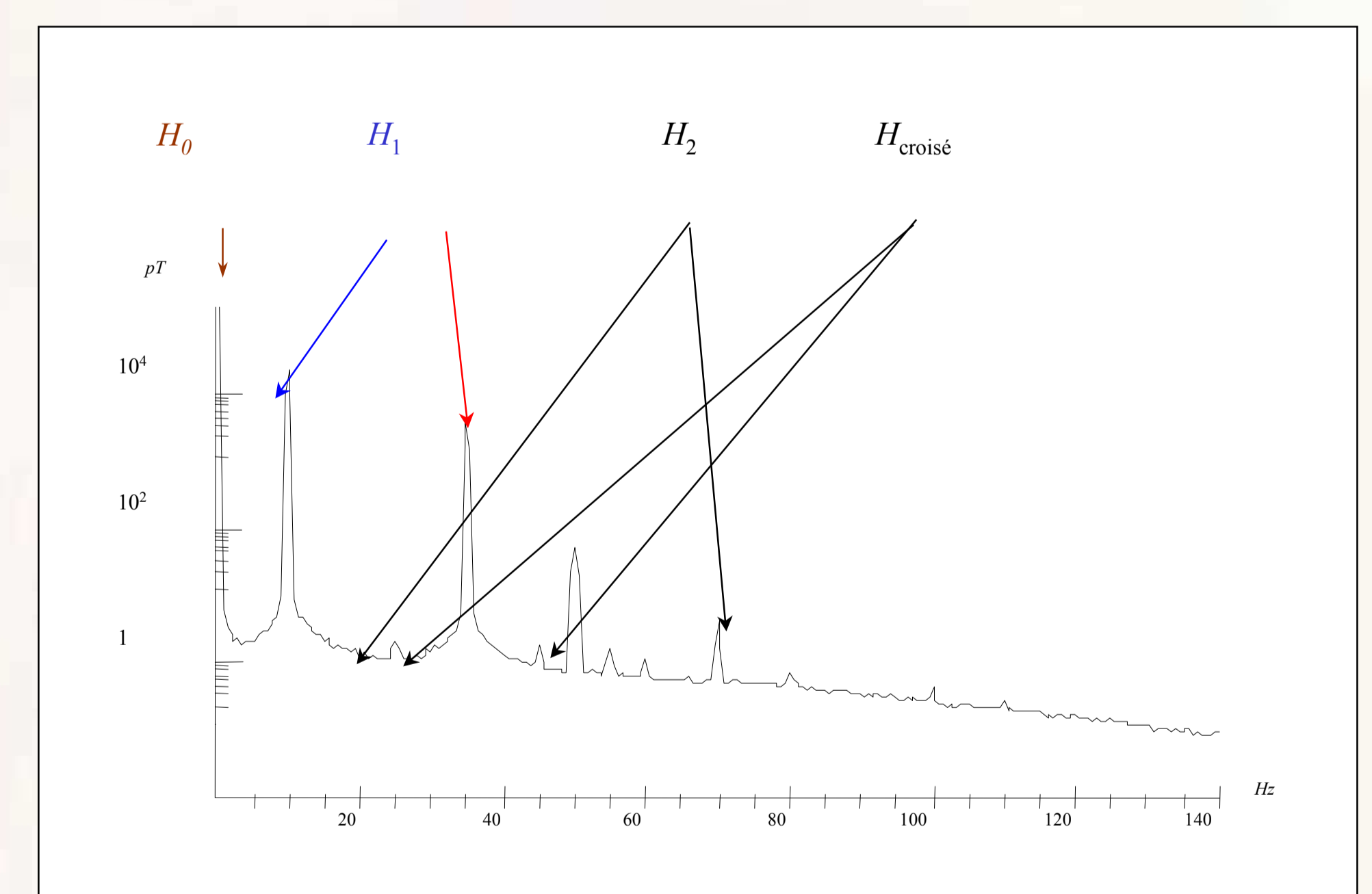
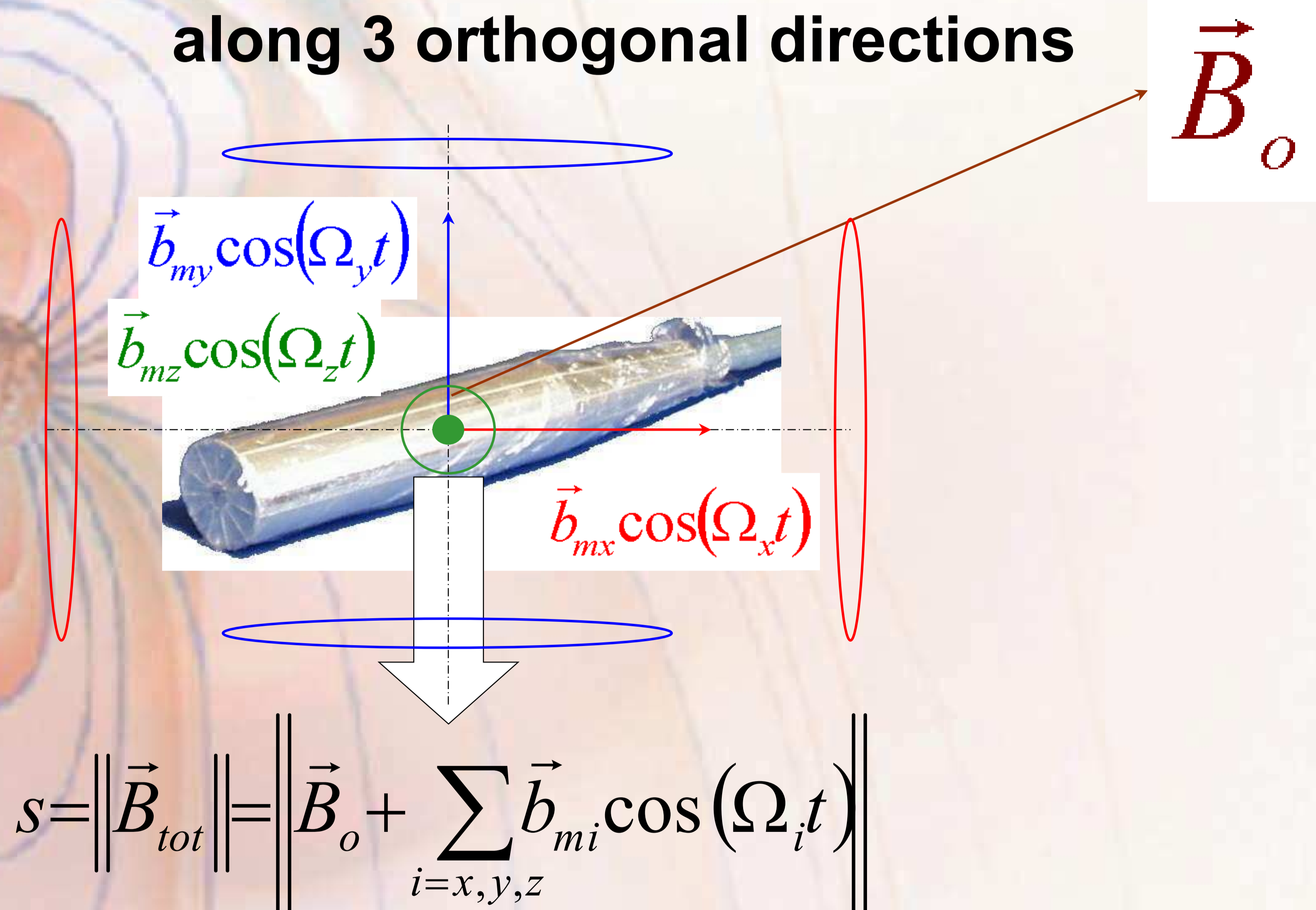
Main scalar features

- Resolution # 1 pT/√Hz
- Extended low field capacity (no signal dependence on the field modulus)
- Bandwidth # 400 Hz
- Absolute accuracy < 150 pT
- Easy operation in a laboratory environment due to reduced EMC and magnetic gradients susceptibility



Absolute vector mode based on the scalar architecture

Superposition of 3 ac modulations (amplitude ~ 50 nT) along 3 orthogonal directions



Real time analysis of the scalar output

Expected performances:

- Accuracy: 1 nT
- Resolution: 1 nT/√Hz @ B₀ = 50 μT
- Bandwidth: 0,5 Hz

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