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# Prospective on electronics and signal processing R&D

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## Abstract

Following its contribution to the ALMA construction phase, the electronics group at LAB has led various development studies funded by INSU, ESO and ERC, to identify technologies, devices, and architectures for the next generation of instruments. This prospective work is focused on the questions of wide band digitization, high speed data transmission, and parallel digital signal processing, including Artificial Intelligence. The status of our ongoing studies will be presented at the time of this meeting. This will include an overview of the solutions that are currently considered for ALMA 2030 and SPIAKID.

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