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## **OpenIPMC-HW: an open-source IPMC mezzanine with a customizable firmware for electronic applications**

*Wednesday 27 April 2022 16:00 (20 minutes)*

OpenIPMC-HW is an open-source Intelligent Platform Management Controller (IPMC) hardware mezzanine designed for use in boards compliant to the Advanced Telecommunications Computing Architecture (ATCA) standard, such as those under development for use in the upgrades of the back-end electronics of High-Luminosity LHC experiments. The mezzanine is designed in a mini-DIMM form factor and is based on an STM32H745 microcontroller. In this talk we present a multithreaded firmware framework, OpenIPMC-FW, based on FreeRTOS and allowing developers of different ATCA boards to configure and access all the functionalities provided by the mezzanine, such as flash file system, Ethernet network, PICMG compliant IPMI functionalities, GPIOs and serial channels.

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