

The remote monitor and control systems of the PADME experiment at the DAFNE BTF

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A possible Dark Matter model postulates that it interacts with Standard Model particles only through a massive photon-like vector particle, called dark photon or A' . The PADME experiment at the DAFNE Beam-Test Facility (BTF) of the INFN Frascati National Laboratory (LNF) is designed to detect dark photons produced in positron on fixed target annihilations decaying to dark matter ($e^+e^- \rightarrow \gamma A'$) by measuring the final state missing mass. A first period of data acquisition, Run 1, took place between 2018 and 2019 while a second period, Run 2, was foreseen for the first half of 2020. Due to the COVID-19 pandemics, which delayed several in-situ activities at LNF, Run 2 was postponed to the second half of 2020. One of the problems facing the collaboration in this period was the impossibility of traveling to the LNF site for the shifters required for the experimental run. This talk describes how the experiment monitor and control systems were successfully adapted to be operated from remote locations, greatly reducing the need for local interventions. Run 2 lasted from July to December 2020 and collected $O(5 \times 10^{12})$ positrons-on-target interactions.

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