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Status of ADRIANO2 R&D in T1604 Collaboration

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A novel high-granularity, dual-readout calorimetric technique (ADRIANO2) is under development as part of the research program of the T1604 Collaboration[1]. The building block of such a calorimeter comprises a pair of optically isolated, small tiles made of scintillating plastic and lead glass. The prompt Cerenkov light from the glass can be exploited to perform high resolution time measurements while the high granularity provides good resolution of the spatial components of the shower. Dual-readout compensation and particle flow techniques applied to the plastic and lead glass sections should provide excellent energy resolution as well as PID particle identification, making ADRIANO2 a 6D detector suited for High Energy as well as High Intensity experiments.

A report on the ADRIANO2 project, current and future R&D plans by T1604 Collaboration, and the construction status of a new prototype will be presented.

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References

1. http://www-ppd.fnal.gov/FTBF/TSW/PDF/T1604_mou_signed.pdf (2019)

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