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## **Evolution and Status of Particle Accelerators Based Studies in Türkiye**

This study provides an overview of the evolution and status of particle accelerators and their applications in Türkiye. It presents a comprehensive review of national projects, graduate institutes, research infrastructures, international collaborations, and scientific events. The progress of the Turkish Accelerator Center (TAC) and the establishment and research potential of the TARLA facility are discussed. In addition, the role of particle accelerators in medical and industrial applications is also highlighted, alongside a chronological overview of national scientific activities in this field. Türkiye's associate membership in CERN and its contributions to CERN experiments, as well as its involvement in SESAME and related R&D efforts, are discussed. Finally, future perspectives on the development of particle accelerators, detectors, and their applications in Türkiye are outlined.

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