

## Regional Doctoral Program in Theoretical and Experimental Particle Physics

Initiative: Zwischen Europa und Orient - Mittelasien/Kaukasus im Fokus der Wissenschaft

Ausschreibung: Ausschreibung strukturierter Doktorandenprogramme

Bewilligung: 14.12.2017

Laufzeit: 4 Jahre

Projekt-Website: <http://training.hepi.tsu.ge/StructDoctProg/>

The project aims at a fullfledged implementation of a common structured doctoral program in theoretical and experimental particle physics in Georgia and Armenia and is a successor of the "Regional Training Network in Theoretical Physics" funded by Volkswagenstiftung In particular, the doctoral program envisages the creation of special structures in Georgia and Armenia (Program Committees, elected by the node members), which, with the help of the colleagues from the partner universities, oversee all aspects of the implementation of the project on site: planning the PhD curriculum and lecture courses, admission and mentoring, assignment of the co-supervisors, planning the research internships for the students, organization of the PhD schools and workshops, financial issues, etc. The creation of such structures will be critically important for the sustainability of the project after the end of the funding period. The planned activities of the collaboration include, in particular, the organization of advanced courses on various topics of theoretical and experimental physics, intended to guarantee that the Georgian and Armenian students receive a high-level PhD training. This is a necessary prerequisite for the organization of successful and fruitful student exchanges between these countries and Germany, which should become an alternative to the unhindered brain drain from the region. Moreover, the events organized by the collaboration in the past (PhD schools, workshops) have attracted many participants from other countries of the region. This supports the expectation to attract, already in the nearest future, students from the neighboring countries by offering a high-level PhD training, compatible with the standards accepted at german universities.

### Projektbeteiligte

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**Open Access-Publikationen**

**B → D1 (2420) and B → D1' (2430) form factors from QCD light-cone sum rules,**

**On partition functions of refined Chern-Simons theories on S<sup>3</sup>**

**First Search for Axionlike Particles in a Storage Ring Using a Polarized Deuteron Beam**

**The CKM unitarity problem: A trace of new physics at the TeV scale?**

**Emergent geometry and duality in the carbon nucleus**