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**REQUEST FOR PARTICIPATION OF INTERNATIONAL PARTNER COUNTRY
TO COST ACTION CA18108, QUANTUM GRAVITY PHENOMENOLOGY IN THE MULTI-MESSENGER
APPROACH**

1. 1. MANAGEMENT COMMITTEE AND Head Of Science Operations APPROVAL

The COST Action CA18108 Management Committee approved By Written Procedure on 29 September 2020, the request for a International Partner Country participation, based on scientific merits.

Name of International Partner Country

NAME	Georgia Institute of Technology
ADDRESS	837 State Street NW Atlanta
COUNTRY	United States (US)
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E-MAIL	otte@gatech.edu
WEBSITE	gatech.edu

Name of representatives to COST Action CA18108

DEPARTMENT	School of Physics & Center for Relativistic Astrophysics
NAME	Prof Adam Nepomuk Otte
ADDRESS	837 State Street NW
COUNTRY	United States (US)
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DEPARTMENT	School of Physics & Center for Relativistic Astrophysics
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Request validated by COST Association Science Officer Dr Ralph Stuebner
This request was reviewed by the COST Head Of Science Operations, and validated on 30 September 2020, based on the scientific merits.

2. PRESENTATION OF INTERNATIONAL PARTNER COUNTRY AND ITS REPRESENTATIVE

The Georgia Institute of Technology, also known as Georgia Tech, is a top-ranked public college and one of the leading research universities in the USA. Georgia Tech provides a technologically focused education to more than 25,000 undergraduate and graduate students in fields ranging from engineering, computing, and sciences, to business, design, and liberal arts. Georgia Tech's wide variety of technologically-focused majors and minors consistently earn strong national rankings. Georgia Tech has six colleges and 28 schools focusing on Business, Computing, Design, Engineering, Liberal Arts, and Sciences. Prof. Otte is an experimental astroparticle physicist. His main fields of study are how magnetospheres of pulsars accelerate particles to relativistic energies accelerators, how astrophysical probes can be used to search for new physics beyond the Standard Model of particles, the search for ultrahigh energy neutrinos, and the advancement of photodetector technologies for astroparticle and high-energy physics.

3. BACKGROUND INFORMATION

Prof. Otte is a long-time member of the VERITAS Collaboration, which operates an array of four Cherenkov telescopes to observe astrophysical objects in very-high-energy gamma rays. He is also a member of CTA, which will be the next generation very-high-energy gamma-ray observatory. Prof. Otte and his graduate student Alasdair Gent collaborate with European partners of this project. The project aims to combine the observations from VERITAS with MAGIC, and HESS to maximize the sensitivity for Lorentz Invariance Violation in the photon sector.

4. DESCRIPTION OF MUTUAL BENEFITS

4.1 Benefits for COST and for the COST Action

Prof Adam Nepomuk Otte and his graduate student Alasdair Gent are members of the VERITAS collaboration. VERITAS is a major ground-based gamma-ray observatory located in southern Arizona, USA. Their participation would greatly benefit our COST Action since it would give impulse to a combined analysis with other gamma-ray observatories (MAGIC and HESS, with representatives in our Action) to maximize sensitivity for the search of quantum gravity effects in high-energy gamma rays. On the other hand, Prof Nepomuk was a pioneer in putting constraints on Lorentz invariance violation delays with pulsars. His expertise in that field will also be very valuable for the Action.

4.2 Benefits for the International Partner Country

Our participation in this action will allow us to complete the LIV project we started in 2016 with our collaborators.

4.3 Brief description of targeted scientific activities, including Working Groups selected for cooperation

Our activities will be limited to contribute with our simulation expertise of LIV effects and how they might be observable in very-high energy gamma rays.

5. ADDITIONAL COMMENTS / REMARKS

Not required.