



GRAVITY RESEARCH FOUNDATION

PO BOX 81389
WELLESLEY HILLS MA 02481-0004
USA

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The trustees are pleased to announce the Awards for Essays for 2022.

1. \$4,000 - **Proper Time Quantization of a Thin Shell** by Cenalo Vaz, University of Cincinnati, Cincinnati, OH 45221-0011; email: cenalo.vaz@uc.edu
2. \$700 - **“The More Things Change the More they Stay the Same”, Minimum Lengths with Unmodified Uncertainty Principle and Dispersion Relation** by Michael Bishop^[1], Joey Contreras^[2], and Douglas Singleton^[2], ^[1]Mathematics Department, California State University Fresno, Fresno, CA 93740, ^[2]Physics Department, California State University Fresno, Fresno, CA 93740; email: mibishop@mail.fresnostate.edu, mkfetch@mail.fresnostate.edu, dougs@mail.fresnostate.edu
3. \$600 - **Black Holes Decohere Quantum Superpositions** by Daine L. Danielson, Gautam Satishchandran, and Robert M. Wald, Enrico Fermi Institute and Department of Physics, The University of Chicago, Chicago, IL 60637; email: daine@uchicago.edu, gautamsatish@uchicago.edu, rmwa@uchicago.edu
4. \$500 - **Large Momentum Transfer Optics: A Means to Probe the Interplay between Gravity and Quantum Mechanics** by Shraddha Agrawal, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL 61801; email: sa30@illinois.edu
5. \$400 - **Unitarity and Quantum Resolution of Gravitational Singularities** by Steffen Gielen^[1] and Lucía Menéndez-Pidal^[2], ^[1]School of Mathematics and Statistics, University of Sheffield, Hicks Building, Hounsfield Road, Sheffield S3 7RH, United Kingdom, ^[2]School of Mathematical Sciences, University of Nottingham, University Park, Nottingham NG7 2RD, United Kingdom; email: s.c.gielen@sheffield.ac.uk, lucia.menendez-pidal@nottingham.ac.uk

Selected for Honorable Mention this year were (listed in alphabetical order): Jeffrey Alloy Q. Abanto; Stephen L. Adler; Ivan Agullo, Anthony J. Brady, and Dimitrios Kranas; D. Benisty, A. van de Venn, D. Vasak, J. Struckmeier, and H. Stoecker; Per Berglund, Tristan Hübsch, David Mattingly, and Djordje Minic; Panos Betzios, Nava Gaddam, and Olga Papadoulaki; Yuri Bonder and Johas D. Morales; Valentin Boyanov; Suddhasattwa Brahma, Robert Brandenberger, and Samuel Laliberte; Pisin Chen, Misao Sasaki, Dong-Han Yeom, and Junggi Yoon; Saurya Das and Sourav Sur; Arthur E. Fischer; Joshua Foo, Robert B. Mann, and Magdalena Zych; Leonardo Giani and Tamara Maree Davis; André Grossardt; Eduardo I. Guendelman and Zeeya Merali; Bin Guo and Samir D. Mathur; Carlos A. R. Herdeiro and Eugen Radu; Clifford V. Johnson; Arun Kenath, Christoph Schiller, and C. Sivaram; R. B. MacKenzie, Victor Massart, M. B. Paranjape, Gordon Semenoff, and U. A. Yajnik; Juan F. Pedraza, Andrea Russo, Andrew Svesko, and Zachary Weller-Davies; Joseph Samuel; Tejinder P. Singh; Erickson Tjoa and Finnian Gray; C. S. Unnikrishnan; Juan Urrutia; Erik Verlinde and Manus Visser; Ram Gopal Vishwakarma; Peter Woit; Asher Yahalom.

This announcement and abstracts of award-winning and honorable mention essays are posted on our web site, <http://www.gravityresearchfoundation.org>. The five award-winning essays are also posted on our website and will be published in the October 2022 SPECIAL ISSUE of the International Journal of Modern Physics D (IJMPD).