Subject: Collaboration Proposal on Emergent Gravity from Quantum Collapse Dynamics

Dear Professor Dittrich,

I hope this message finds you well. My name is Vlad Belciug, and I am currently finalizing my Master’s in Cybersecurity and Machine Learning. Despite my nontraditional background in physics, I have developed a simulation based on GRW-inspired quantum collapse dynamics, exploring the hypothesis that gravity may emerge as an effective force.

In my work, I optimized collapse parameters such that the power spectral density of the emergent gravitational potential exhibits a scaling exponent near –5, a value theoretically predicted to be consistent with Newtonian gravity. Preliminary results show a noise exponent of approximately –5.24 (with a standard error of about 0.23), which I find both intriguing and promising. Although there remains a significant energy conservation error that requires further refinement, these initial findings suggest that the approach has potential.

I am very interested in exploring this research further and would greatly appreciate the opportunity to discuss possible collaboration. I believe that my interdisciplinary expertise—combining machine learning with computational simulation—could complement your research in quantum gravity. I have attached a preprint of my work, along with the complete code and supplementary data, for your review.

I would be grateful for any feedback or suggestions and would welcome the opportunity to collaborate on improving and expanding this research, perhaps in a fully funded doctoral program or as part of a joint research project.

Thank you very much for your time and consideration. I look forward to the possibility of discussing this further.

Best regards,

Vlad Belciug

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