



Solid State Institute
המכון למחצב מוצק

TECHNION
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Revivals of photonic wavepackets induced by Curved Space

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Abstract

We present the first study on the interplay between wave dynamics in lattices and the curvature of space, introducing General Relativity concepts to the rich physics of waves in periodic potentials. Our study describes these systems using the language of artificial gauge fields. We study phenomena associated with revivals of wavepackets induced by the curvature of space, and derive an analytical close-form condition for the revival of any wavepacket, regardless of its initial waveform. Our curved space system has unique features, which are fundamentally different from known revival phenomena in flat space.

ההרצאה תתקיים ביום רביעי י"ט שבט ה'תשע"ז (15 לפברואר 17) בשעה 12:30

בבניין פיסיקה (לידוב), קומה חמישית, אשר פרס 502

The lecture will take place on Wednesday, 19th Shvat 5777 (15th Feb. 17) at 12:30

at the Physics Building (Lidow), 5th floor, Asher Peres 502

M.Sc. Student of a Distinguished Professor Mordechai Segev