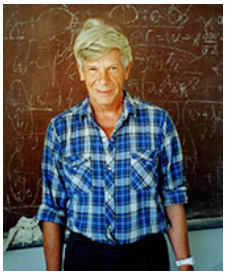

Contribution ID: **37** Type: **Session Talk**

Dynamical Casimir effect in nonlinear resonant cavities

Monday, 10 October 2022 15:20 (25 minutes)

The number of particles created in a resonant cavity is known to grow linearly at large evolution times [J. Math. Phys. 34, 2742 (1993)]. Employing the Schwinger-Keldysh diagrammatic technique, I show that nonlinear interactions generate nonzero quantum averages and enhance this number. For simplicity, I discuss a $\lambda\phi^4$ massless scalar field in a cavity with perfectly reflecting walls vibrating at twice the fundamental frequency of the cavity.

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