Seminarium Zakładu Fizyki Teoretycznej

Departament Badań Podstawowych
Narodowego Centrum Badań Jądrowych

11 grudnia 2019 r. (środa), godz.12:15
NCBJ, sala 404, **Pasteura 7**

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„WKB, Padé summation, quasinormal modes and (almost) all that"

ABSTRACT:
The quasinormal modes of black holes have been the subject of intense studies over the last 40 years and the reason for this continuous interest stems from the fact that they were expected to be detectable. Indeed, a perturbed black hole undergoes the ringdown phase in which the oscillations are characterized by a set of complex frequencies, ω The real part of each ω gives the oscillation frequency whereas the imaginary part determines the characteristic damping rate and consequently the quasinormal modes are crucial in detecting and subsequently studying the properties of the gravitational waves generated in the violent collisions of black holes or gravitational collapse. Because of the constant and still growing interest in the quasinormal modes many numerical and analytical approaches have been proposed for their calculation. I will discuss recent findings that allow to construct the quasinormal modes with high accuracy.

Serdecznie zapraszamy,

M. Kowal, W. Piechocki, J. Skalski, L. Szymanowski