GRK 2905
Ultrafast
Nanoscopy

Colloquium

Friday, December 13, RUN auditorium

Part 1: 14:00 PM

Bright squeezed vacuum and its applications in strong-field physics

Strongly pumped parametric down-conversion produces a state of light that, on the one hand, is as intense as laser light, and on the other hand, has pronounced quantum features. This state, known as bright squeezed vacuum, has zero mean electric field and consists only of quantum fluctuations, enhanced or suppressed on a subcycle scale. Recently, we have used this state to drastically modify the dynamics of strong-field effects, such as non-perturbative harmonics generation and electron ejection from needle tips.

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Coffee break