

# CAMT Seminar

“The effect of VUV photons on nanosecond helium microdischarges at atmospheric pressure”

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Date: February 15, 2019 (Fri) 16:00-17:00

Location: Main Conference Room (1st floor), Bldg. A12

Center for Atomic and Molecular Technologies (CAMT)

(A12 棟 1 階会議室)

## Abstract:

Atmospheric-pressure microdischarges excited by nanosecond high-voltage pulses are investigated in helium-nitrogen mixtures by first-principles particle-based simulations that include VUV resonance radiation transport via tracing photon trajectories under optically thick conditions. The VUV photons are found to modify remarkably the computed discharge characteristics due to their ability to induce electron emission from the cathode surface, resulting in enhanced plasma density and in significantly higher current pulse amplitudes.

(Host: Satoshi Hamaguchi Ext:7913)