



# SFB1242

Nichtgleichgewichtsdynamik kondensierter  
Materie in der Zeitdomäne

UNIVERSITÄT  
DUISBURG  
ESSEN

*Open-Minded*

**08.01.2019 / 10 Uhr c.t., Raum MG 272  
Campus Duisburg**

## **Strongly correlated materials in intense laser fields: nonequilibrium DMFT approach**

**Dr. Evgeny Gorelov**

**European XFEL GmbH, Hamburg, Germany**

In the talk I present results of theoretical study of two-dimensional Hubbard model in presence of strong electric field. The Hubbard model is treated in Dynamical Mean-Field approximation (DMFT) on Keldysh contour. We show that using short and intense electromagnetic pulses one can alter spectral properties of strongly correlated materials, change topology of Fermi surface, induce population inversion and switch the system to long-lived non-thermal states. As an example I show results for optimally doped  $\text{La}_{1.84}\text{Sr}_{0.16}\text{CuO}_4$  material.

**Für diese Zeit steht eine Kinderbetreuung nach vorheriger Anmeldung zur Verfügung.**

Contact: Dr. Manuel Ligges, Faculty of Physics  
Phone: +49 (203) 379-4547 / Mail: [manuel.ligges@uni-due.de](mailto:manuel.ligges@uni-due.de)

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SFB 1242 • Faculty of Physics • University Duisburg-Essen • Lotharstr. 1 • 547058 Duisburg  
Chairman: Prof. Dr. U. Bovensiepen • Phone: 0203 379-4566 • Fax: 0203 379-4555 • Mail: [uwe.bovensiepen@uni-due.de](mailto:uwe.bovensiepen@uni-due.de)  
Management: Dr. N. Dörmann • Phone: 0203 379-1545 • Fax: 0203 379-1546 • Mail: [nora.doermann@uni-due.de](mailto:nora.doermann@uni-due.de)