Announcing the 14th Annual

Signal and Imaging Sciences Workshop

November 15 – 16, 2007

at Lawrence Livermore National Laboratory, B482 Auditorium

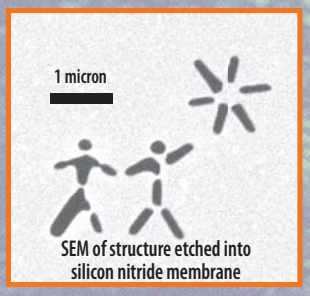
OPEN to all
LLNL Employees and Guests

Keynote Speaker

Prof. Jitendra Malik

University of California, Berkeley

For information and to register go to CASIS website: (http://casis.llnl.gov/) for more info and to download an electronic copy of the registration form.



SEM of structure etched into silicon nitride membrane


Reconstructed Image – achieved diffraction limited resolution!

Above right is the fastest diffraction-limited image ever reconstructed. (The diffraction pattern that generated this result is the background image.) Using coherent x-rays (32 nmλ) from the 30-fs FLASH free-electron laser in Hamburg, the sample structure (etched into a silicon nitride membrane; SEM image at left) was completely destroyed by the imaging pulse at 30 trillion W/cm^2. The program goal is to observe fs-scale processes down to the resolution of individual molecules.

Image Credit: Henry Chapman, LLNL; et al, Nature Physics (Dec 2006) and Nature (Aug 2007).

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