



UNIVERSITA' DEGLI STUDI DI ROMA TOR VERGATA

NAST – Centro Interdipartimentale

Nanoscienze, Nanotecnologie e Strumentazione Avanzata

ABSTRACT

“Star the new Italian facility of coherent X-rays: state of the art, perspectives”

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This presentation deals with STAR, the new Italian source of hard X-rays. The source is almost ready and it could be interesting to illustrate the steps of such enterprise.

I will show the main peculiar technical and scientific features of STAR: a Thomson back scattering (TBS), generating high intensity hard X rays, monocromatics, microfocused and almost coherent.

STAR is projected to work essentially in phase contrast designed to operate essentially in tomography in several fields: materials, of course, but beyond materials we want to specialize the source to be an European reference point , for the applications in the cultural heritage, and in the medical theranostics. STAR will be at the moment the first world TBS operating as a facility open to users.

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