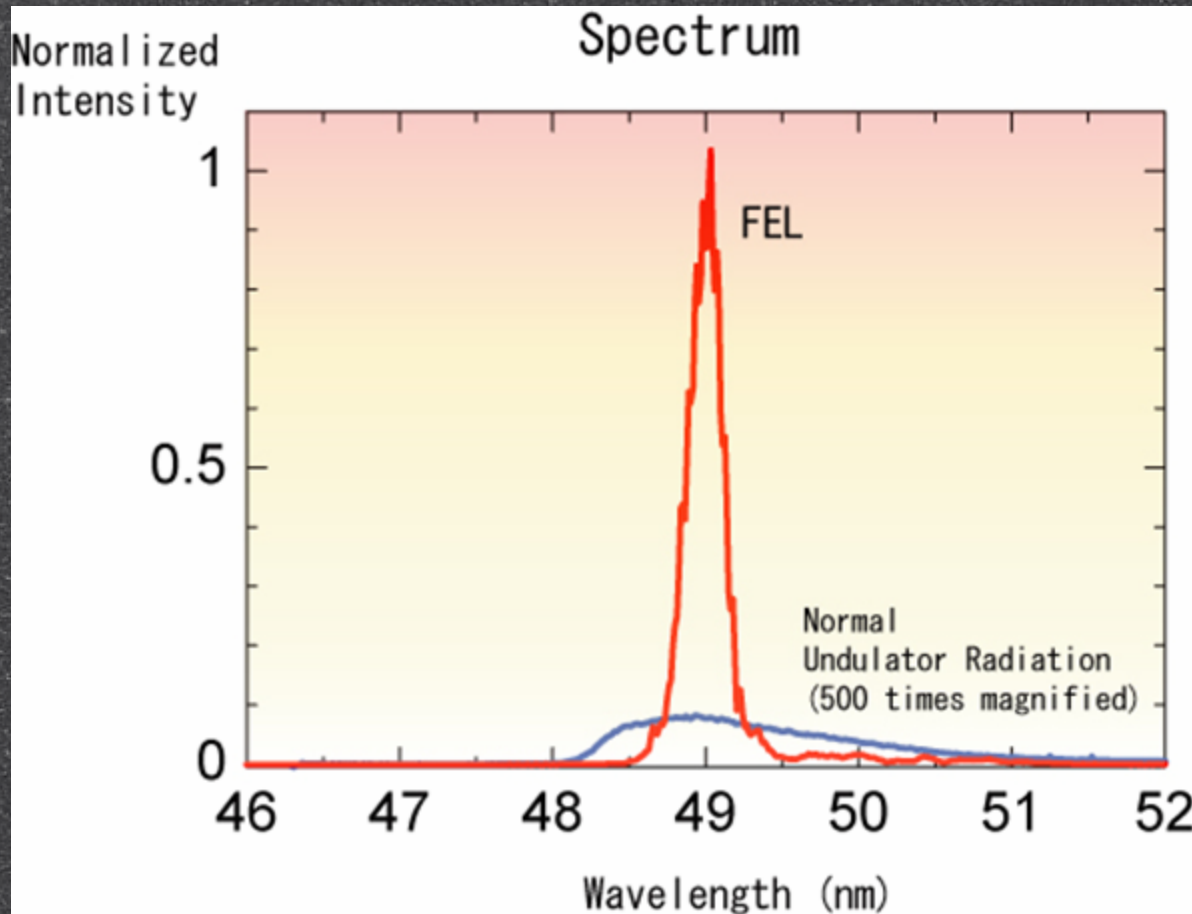


# STATUS OF THE SCSS PROTOTYPE ACCELERATOR AND CONTROL SYSTEM

Toru OHATA / SPring-8



# First lasing at the SCSS prototype accelerator



The first lasing: 49 nm  
6000 times larger than the  
spontaneous undulator radiation  
@ June 20, 2006

## Parameters of electron

E-beam energy: 250 MeV  
Bunch charge: 0.25 nC  
Bunch length: < 1 psec  
Peak Current: > 300 A



# What is SCSS ?

- 📍 "SCSS": SPring-8 Compact SASE Source
- 📍 "SASE": Self-Amplified Spontaneous Emission
  - 📍 - unique solution for FEL at X-ray region
- 📍 A project to realize forth generation light source



# Forth generation light source

- High peak brilliance, Small beam size, Optical coherency

## Main Targets

- Life science to explore at “water window”.
- High resolution 3-dimensional Imaging.
- Pump-probe experiment together with SPring-8 light source.
- Diffraction experiment of coherent scattering.