

Introduction of the application of IVE in Saitama Institute of Technology and Saitama University

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Saitama Institute of Technology

JSST2011 at Tokai University
On 22 Oct. 2011

IVE of Saitama Univ. & SIT

Saitama University
Since March 2001



*Four screens (2.5m x 2.5m)
*ONYX3400 → PC cluster

*AVS
*CAVELib+OpenGL

*Research (+ Education)

Saitama Institute of Technology
Since May 2003



*Four screens (2.45m x 2.45m)
*ONYX300

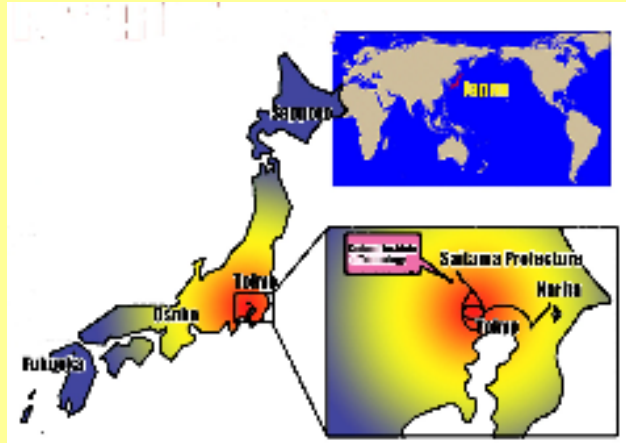
*AVS
*CAVELib+OpenGL

*Education (+Research)

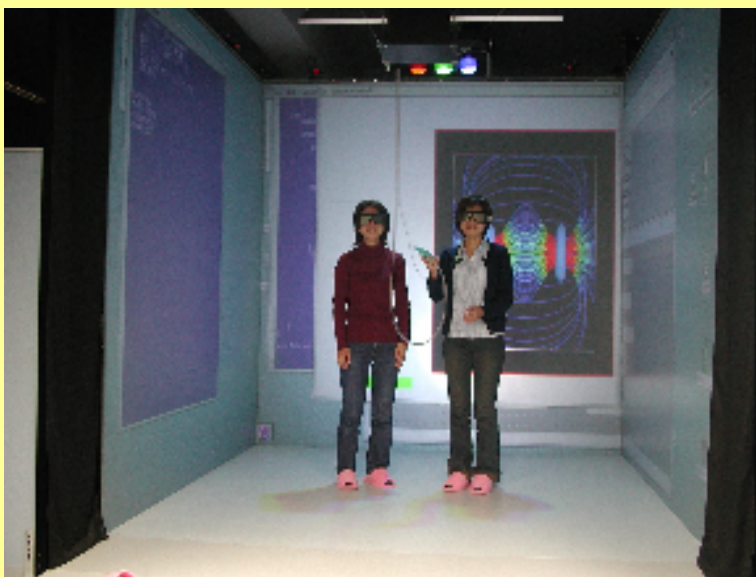
My name is
Fukanyan of
SIT.



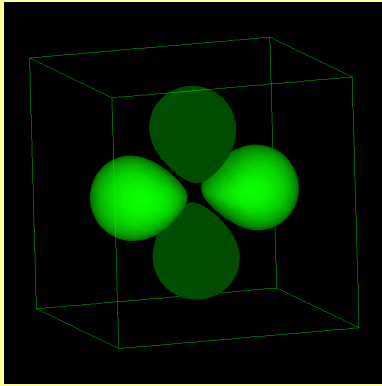
Where is Saitama?



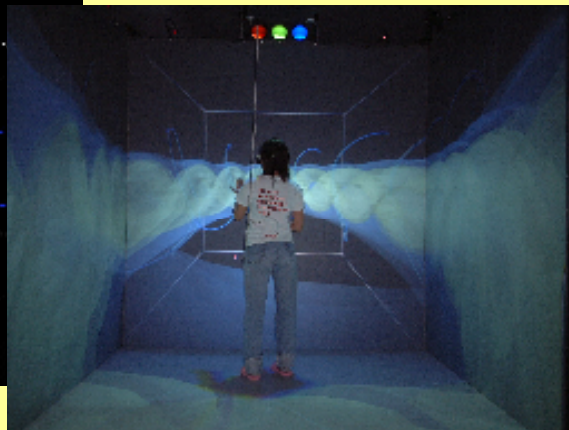
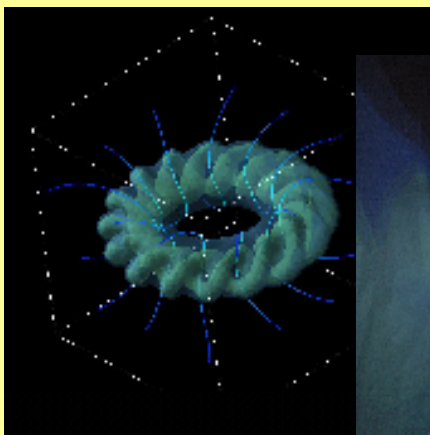
CAVE of Saitama Univ.



3D configuration of electrostatic potential by four point charges



Electromagnetic fields by two helical, visualized by AVS

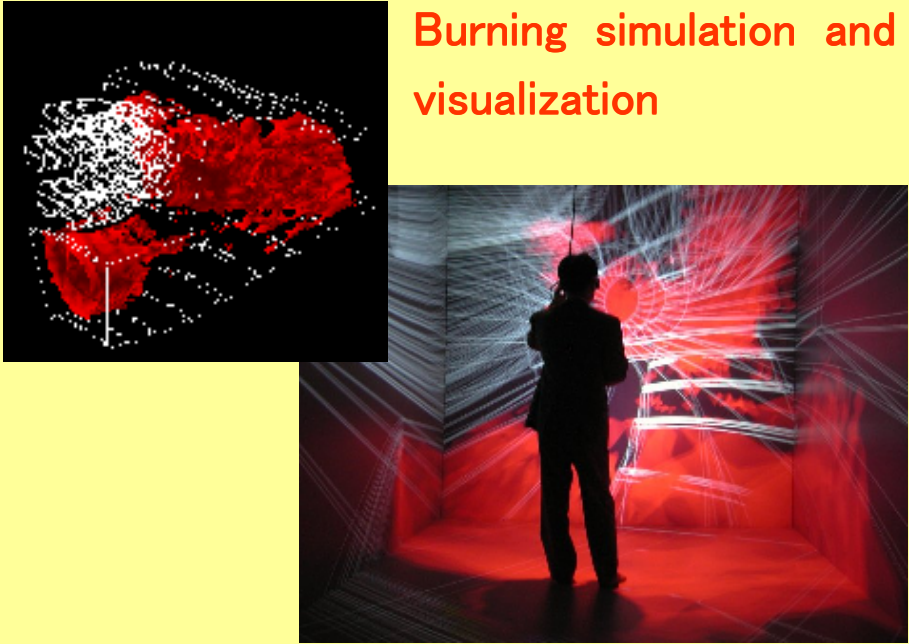


IVE view of crystals.



The top photograph shows two individuals standing in a virtual environment with blue walls. They are surrounded by numerous small, colorful, glowing spheres in shades of red, blue, and green. The bottom photograph shows a person standing in a dark space, looking at a dense field of similar colorful, glowing spheres that appear to be floating or attached to the walls.

Burning simulation and visualization

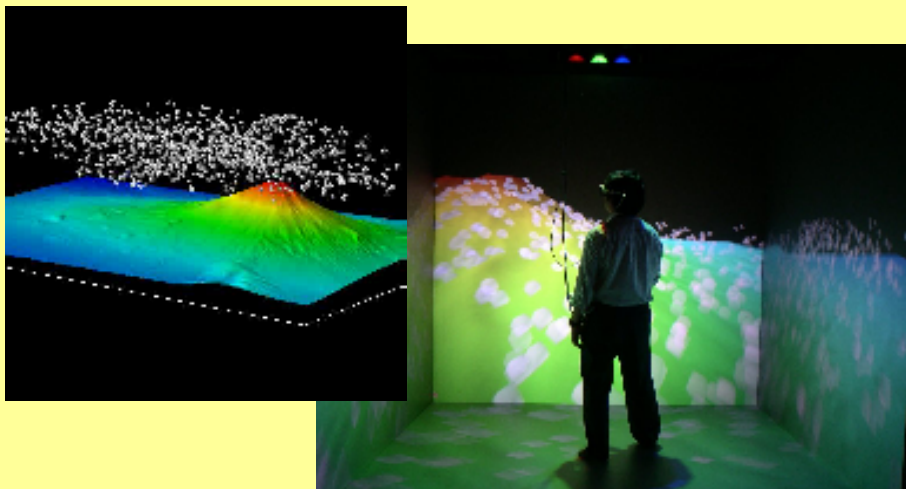


The top photograph is a close-up of a textured surface, possibly a simulation of a burning object, showing a mix of red and white colors. The bottom photograph shows a person standing in a dark room with red walls. The person is looking at a complex, glowing structure composed of red and white lines and surfaces, which appears to be a visualization of a burning simulation.

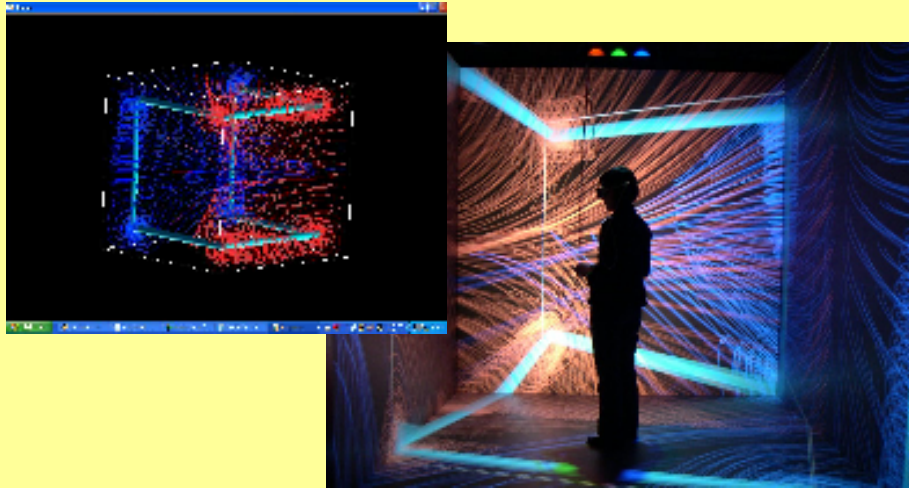
CAVE of Saitama Institute of Technology



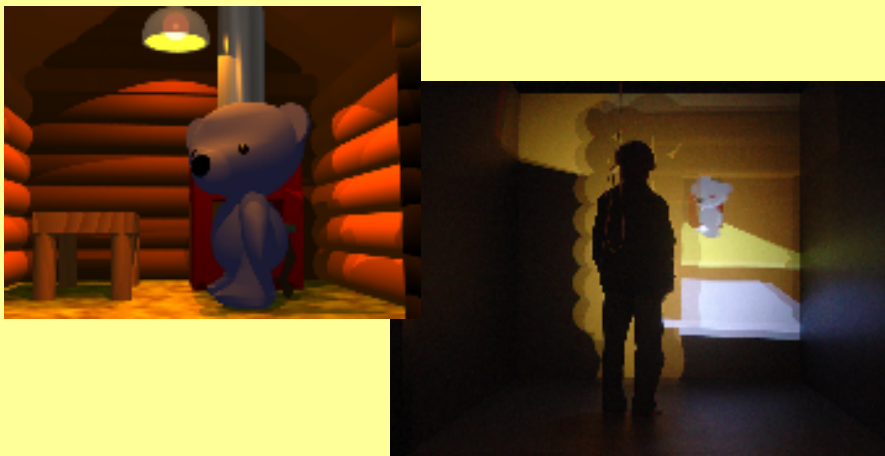
Animation in IVE by AVS, where Mt. Fuji is shown by using the numerical map.



Electromagnetic fields by a baseball coil, visualized by AVS



3D CG and visualization in IVE



Educational experience for high school student

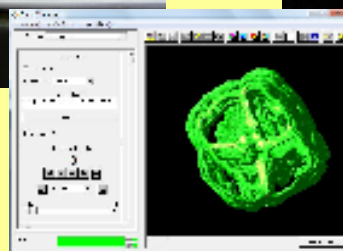


They are impressed by
 (1) stereographic view and
 (2) interactive projection,
 (immersive virtual reality IVR).

Education by Scientific Visualization



Photos to
make the 3D
volume data



3D
visualization by
AVS



3D
visualization in
CAVE

**CAVE Study Meeting was initiated
on 7th Feb. 2002
To exchange the experience and
tools available in IVE.**

Totally x48 in the last 10 years

Saitama Univ. x31

Saitama Institute of Technology x1

ES x4

Tokai Univ. x5

Chuo Univ. x4

Joshihi x1

Univ.Tokyo x1

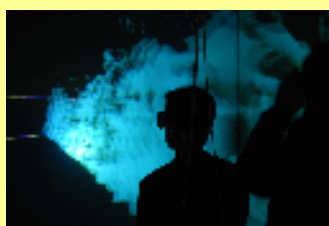
Tohoku Univ. x1

**48th CAVE Study Meeting at Saitama
Institute of Technology on 28 Sep. 2011**



CAVE Study Meeting at Saitama University

45th on 19 Jan. 2011



43rd on 12 July 2010

