

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations (IP)

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KOSMOS 3, AN AUGMENTED REALITY VERSION OF THE ARTISTIC INSTALLATION KOSMOS

Abstract

Kosmos , in Reunion Island, is an artistic model of the Solar System to scale for size and distance, which includes the Sun and thirteen planets and dwarf planets, inaugurated in 2016. The Sun, with a diameter of 2,5m, is the center of the installation, and thirteen planets and dwarf planets revolving around it spread over 50km distance. Mercure with a diameter of 8mm, is at 100 meters from the Sun, and dwarf planet Eris, with a diameter of 4mm, is at 26 kilometers from the Sun. Jupiter is 1,4km away from the Sun and has a diameter of 25cm. Gaïa, our own little planet, has a diameter of 2cm. Kosmos is an attempt at a paradigm shift for democratization of art and sharing of scientific knowledge with all audiences. The scope of interaction of today's mankind with its environment is the entire solar system. Kosmos III aims to develop a tool, a kind of new educational media to help people understand and feel the solar system adventures of this century. This software developed for mobile phones will include the trajectory of space exploration missions, and "invisible" facts as gravity, magnetic fields, etc... Ultimately, it could be suited for a device such as Google glasses, and worn by students, guided around a Kosmos installation, or a 1/10 version, even a 1/100 version. In the 1/10 version, this software can also be used by Space Cultural Centers, in schools, etc... A kit of teaching hardware equipment is provided, with the Sun, 25cm in diameter, the 13 planets and dwarf planets, a few millimeters, all placed at the top of adjustable stems. Then the software is launched; it contains different demo programs: revolution of the planets (basic), but especially all space missions visualized "in motion" as augmented reality, with correlation with planets in orbits; One can even visualize the gravitational influence on scale ... We can imagine cultural mediators who explain in real time the observed movements, and manage the app to animate the session, as well as pre-recorded voice-over, for a kind of *Celestial Mechanics for Dummies* . Presenting the project at IAC can help find supports, funds, opportunities, knowledge, etc... that could assist in the development of this software still in the making. It is a question of bringing together cutting-edge techniques that already exist as a future form of audiovisual production for educational programs.