

Advanced Issue of Visualization and Virtual Environments

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In the report are represented the works, carried out by the virtual teams, created on the base of the Institute of Computing for Physics and Technology with the support of the Russian Foundation of Basic Research and Fraunhofer Institute of Mediacommunication, Sankt Augustin, Germany. The enumeration of projects is included:

-- Research and Development of Panoramic Virtual Environment Systems for Tasks of Visualization in Science, Education and Industry, project leader S.V.Klimenko, NICEVT-ICPT-MIPT

-- Research and Development of Induced Virtual Environment for Space Research Tasks, project leader V.O.Afanasiev, ICPT-MCC

-- Creation of Virtual Models for Tasks of Visualization and Animation of Complex Dynamic Systems of Theoretical Physics in Virtual Environment, project leader I.N.Nikitin, ICPT-MIPT

-- Creation of Situation Center Prototype for of Space and Manned Space Flights Scenarios Imitation in Virtual Environment, project leader Yu.M.Baturin, ICPT-Otryad_kosmonavtov_RF-MIPT

-- Development and Creation of Nuclear Reactor Virtual Model for and Monitoring its Behavior in Normal Mode, project leader D.A.Shkarovskiy, SSC KI

-- Development of Virtual Storytelling Technology Based on the Virtual Planetarium, project leader A.V.Leonov, ICPT-MIPT

-- Creation of Virtual Environment Technology for Problems Solution of Spacecraft Recognition and their Parameters Estimation According to Terrestrial Observations, project leader V.P.Aleshin, ICPT-"Vympel"_corporation-MIPT

-- Research and Development of Precision Tracking System for Applications of Virtual and Mixed Reality, project leader M.V.Foursa, ICPT-IMK-MIPT

-- Development of Ecological Catastrophes Monitoring Technology on Basis of Synthesized Reality, Which Includes: Virtual Earth, Data of Space Sensing and Processes Simulation, project leader A.A.Serebrov, ICPT

-- Mathematical Modeling and Visualization in Virtual Environment of Nuclear Reactors Behavior, project leader M.I.Gurevich, SSC KI