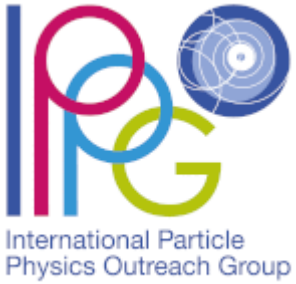
Results of the IPPOG Agreement with Georgia



SHARMAZANASHVILI Alexander

Georgian Technical University

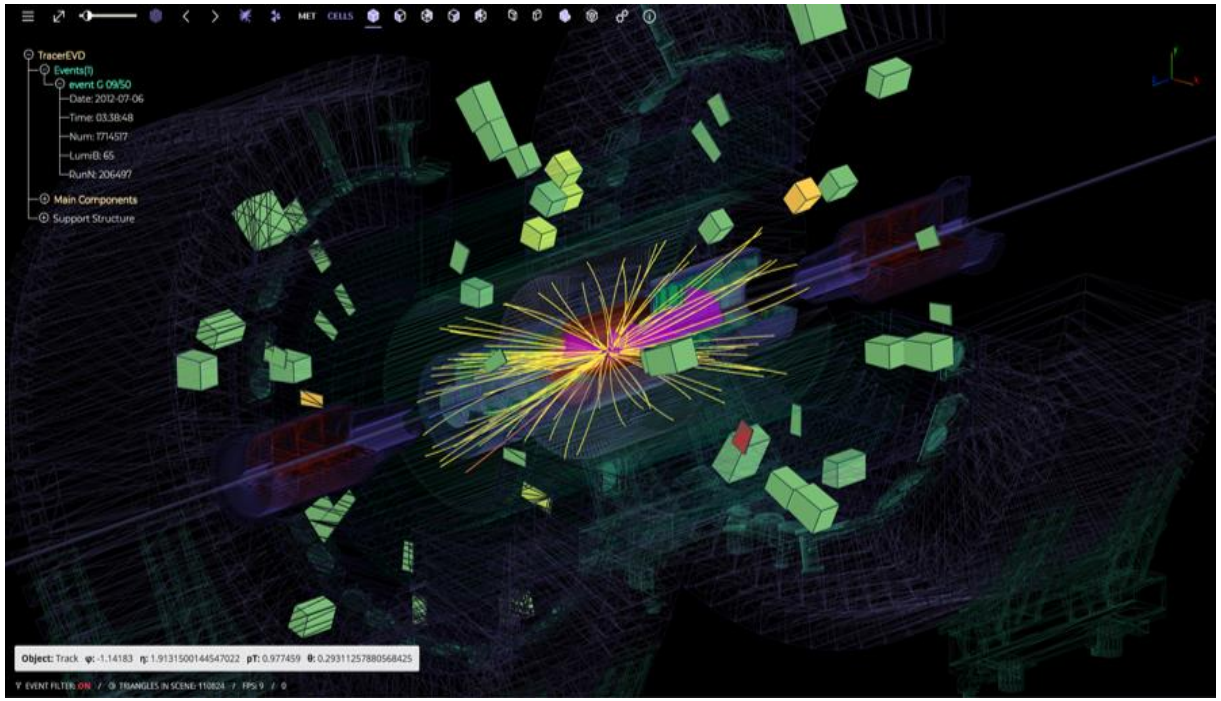
https://indico.cern.ch/event/1084892/

- IPPOG agreement was signed on 8 of July 2021 between the IPPOG management and the Georgian Technical University management
- Title of agreement: “Provision of Level of Effort in the Development of Visualisation Software Applications for the IPPOG Collaboration”
- The agreement based on the Addendum No.15 signed on 5th of October 2020 by the Ministry of the Science and Education of Georgia Dr. Mikheil Chkenkeli and the spokesperson of the IPPOG collaboration Dr. Steven Goldfarb
- The purpose of the agreement is to define and intended software commitment of the team of the Georgian Technical University (Georgian team) in the IPPOG

Scope And Validity

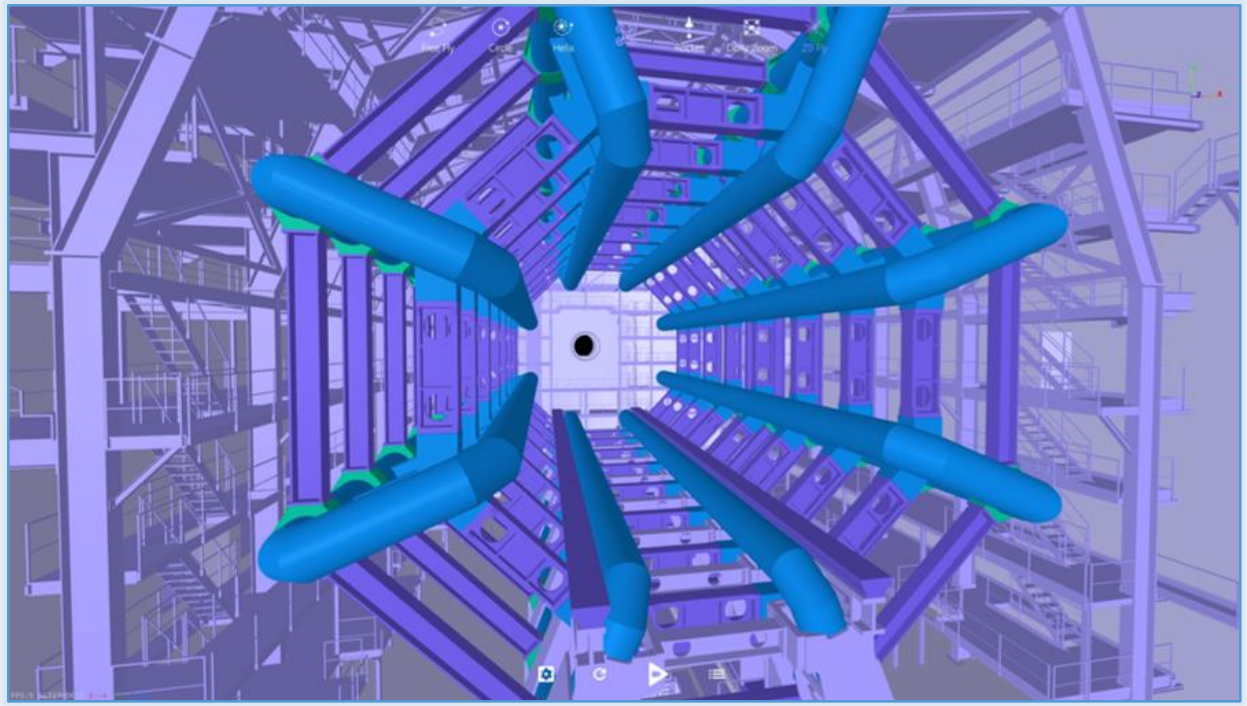
With this agreement, Georgian Team undertakes to provide effort in the area of software development and support

- Browser-based Events 3D Visualization Display application for the ATLAS experiment
- Application will be a browser based and will ensure the high performance and quality of the 3D scenes together with the standard functionalities of other ATLAS event displays



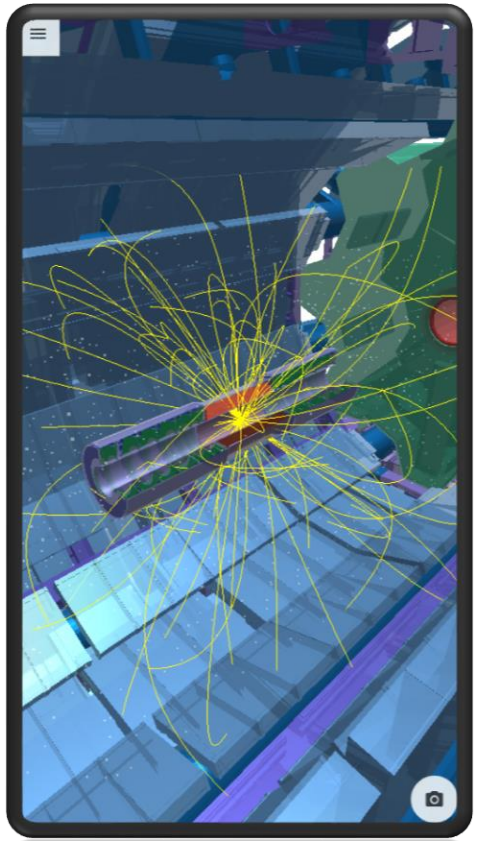
Scope And Validity

- Browser-based Virtual Reality application for organization of the virtual tours in ATLAS
- Application will run in browsers, using average power mobile phones and cheap Google cardboards
- No special hardware, engines or super notebooks



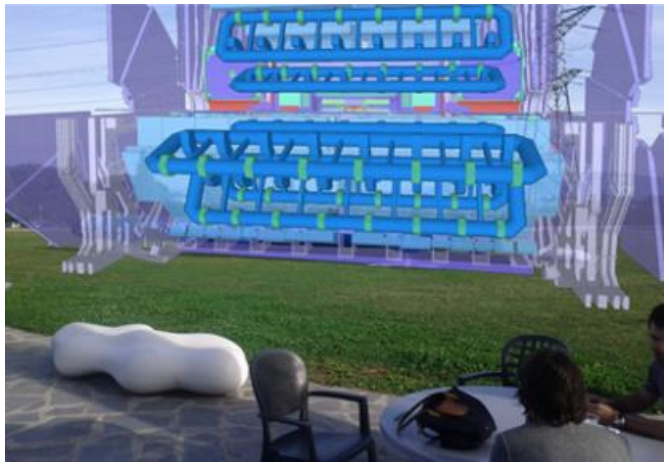
Scope And Validity

- Browser-based Augmented Reality application for cognition of the ATLAS detector
- Detailed and realistic descriptions of full ATLAS infrastructure
- Realistic geometric cuts
- High performance



Scope And Validity

- Browser-based Augmented Reality extensions to the printed posters, books and other exhibition materials
- Cognitive 3D gaming applications about the Particle Physics



Output

- The Georgian team will create cognitive software applications for visualisation based on modern technologies and develop Masterclass methodology adapted to them. These new tools will not only ease virtual visits by making the visitor experience closer to reality; they will also have an educational impact, by offering educators a complementary way to organize masterclass sessions targeting high-school students.
- The Georgian Team will evaluate the usage of cognitive applications involving 3D virtual and augmented realities in improving a student's experience in her/his participation in an International Masterclass in Particle Physics, through extensive testing in Georgia, before being made available to other interested countries
- IPPOG will share successful experience and tools through the IPPOG educational network

Current Status

- Recruiting the manpower at the Georgian Technical University. We are actively involved in the preparatory program to grow up new and young motivated students
- All manpower will be funded by the Georgian Technical University. We are preparing budget for 2022
- Development of the working plan foresee with close cooperation to the IPPOG masterclasses steering group

Thanks!