



Virtual Reality Visualization in the Deep Carbon Observatory

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Based on our experience with virtual reality investigations in the Deep Carbon Observatory (DCO), we will present VR applications, including video demonstrations, to explain how VR is being used to advance scientific investigations. The DCO developed or co-developed visualization software with applications in mineralogy, geodynamics, computational chemistry, and environmental monitoring, and will highlight results from selected applications.

We have found VR to be most effective when applied to a scientific problem/question that does not lend itself to analysis by established methods. We will introduce a variety of VR methods being employed by DCO scientists and demonstrate what can be accomplished with interactive, immersive visual data analysis in VR. Depending on the application, VR can lead to better quantitative measurements, quality control of measurements, and identification of features or relationships that are otherwise hard to identify.