Accurate molecular atom selection in VR

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Accurate selection in cluttered scenes is complex because a high amount of precision is required. In Virtual Reality Environments, it is even worse because it is more difficult for us to point a small object with our arms in the air. Not only our arms move slightly, but the button/trigger press reduces our weak stability. In this paper, we present two alternatives to the classical ray pointing intended to facilitate the selection of atoms in molecular environments. We have implemented and analyzed such techniques through an informal user study and found that they were highly appreciated by the users. This selection method could be interesting in other crowded environments beyond molecular visualization.

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