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Shake-and-Bake Visualizer. A. Ghadersohi¹, D. Pape², C. M. Weeks³, M. L. Green¹ & R. Miller^{1,3},
¹Center for Comp. Res. & Dept. of Comp. Sci., SUNY-Buffalo, ²Dept. of Media Study SUNY-Buffalo,
³Hauptman-Woodward Institute, Buffalo NY.

In a data-driven society, it is critical to be able to efficiently and effectively visualize scientific data. We consider the problem of providing a fully networked system for monitoring and editing scientific data across a wide variety of platforms and graphics environments. The new generation of scientific visualization software that we introduce provides a cross-platform, collaborative environment to view and modify data, specifically protein structure data. Our solution allows for an immersive display of structures in the CAVE virtual reality, as well as full support for regular desktop graphics environments. Via an auto-refresh capable file-based database, the *SnB Visualizer* doubles as a real-time monitor for several *SnB* applications running at the same time. Different potential solutions are automatically presented to the collaborative research group as they are queried from the database. Moreover, an object-oriented approach allows easy extension of the API, providing an environment for prototyping and testing of new crystallographic algorithms operating on protein structures. Research supported by NSF grant ACI-0204918.