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A Big Data Analysis display tool for teaching undergraduate research. MUHAMMAD SALEEM, Bellarmine University — In the era of Big Data, with the increasing use of large-scale data-driven applications, visualization of very large high-resolution images and extracting useful information searching for specific targets or rare signal events) from these images can pose challenges the current display wall technologies. At Bellarmine University, we have set an Advanced Visualization and Computational Lab using a state-of-the-art next display wall technology, called Hiperwall (Highly Interactive Parallelized Display Wall). The 16 ft x 4.5 ft Hiperwall visualization system has a total resolution of 16.5(MP) which consists of eight display-tiles that are arranged in a 4 x 2 tile. This system can perform interactive visual data analytics of large by comparative views of multiple large images in Astronomy and event displays in experimental High Energy Physics. Users can display a single image across all the display-tiles, or view many different images simultaneously multiple display tiles. Hiperwall enables simultaneous visualization of multiple high images and their contents on the entire display wall without loss of clarity and. Hiperwall's middleware also allows researchers geographically diverse to collaborate on large scientific experiments. This setup provides a new generation of display wall setup and is based on the Hiperwall technology, which is a robust visualization system for Big Data research.

Muhammad Saleem
Bellarmine University

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