

Transdisciplinary Visualization Techniques



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We are pleased to present this issue, Volume 7/Number 4, of the Journal of Visualization, which completes the 7th year publication of JOV, to all our readers around the world. Since the first issue of JOV was published in 1998, JOV has enjoyed continuous growth in both paper submission and journal circulation. During the same time, it has gained high reputation from the worldwide academic and engineering communities by providing powerful visualization tools for fundamental research. In parallel to regular manuscript processing, Editorial Board of JOV have been trying to make a particular effort to disseminate innovative visualization techniques and expand their range of applications from fundamental flow research to various applied areas including environmental and medical fields, and even fusion between culture and technology. For instance, respiratory air pollution and fluid dynamic patterns in a human body are visualized by the most advanced particle image velocimetry; in contrast, archeological research explores the unexplored imbedded patterns on earthenware by using noninvasive techniques. We are sure that this expanded JOV concept has established a new “transdiscipline” in itself, which should serve other disciplines by providing supplementary hardware and software. We are sure that the transdisciplinary visualization will contribute to the future advances in science, technology and humanities, and also resolve problems in multi-disciplinary areas.

In this issue, JOV meets new challenges reported by nine contributed papers on fundamental and applied visualization. The first five papers report on fine pieces of research work on flow visualization, including hydrodynamic instability in a Taylor cell, submerged water jet, hydrogen jet flame, S-shape duct diffusers, and the wake of an inclined circular cylinder. The rest of four papers present unique applications of visualization techniques to air pollution, ocean water, an abnormal nasal cavity, and ancient Japanese culture. All of these articles can be viewed in their full-color entirety. We hope our readers will find these contributions in this issue interesting and useful. Finally, we would like to extend our appreciation to all the authors and also the editorial secretary, without their valuable efforts this issue would have not appeared.

Managing Editor
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