

ビジュアルコンピューティングセミナー2019-01

下記の要領で、今年度第1回のセミナーを開催しますのでご参集ください。

日 時:2019年5月30日(木)13:00-14:30

場 所:慶應義塾大学矢上キャンパス 14棟 201号室

題 目 : Topologically accentuated volume rendering

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要 旨 : Control parameter values have a significant impact on the quality of visualization results. The most common approach is to determine these values by trial and error, though it does not guarantee appropriate visualization results. To address this problem, we proposed a topology-based scheme for setting the volume visualization control parameter values. In our study, topological structures are extracted by tracing topological changes in evolving isosurfaces according to scalar field values, and then, a level-set graph, called a volume skeleton tree, is constructed. We have developed various advanced volume visualization schemes making reference to the topological structure. In this lecture, I will introduce topologically accentuated volume rendering with a special focus on how to determine a proper triplet of transfer functions, a viewpoint position, and a light source position in a topological manner.

講師略歴 : Yuriko Takeshima is a Professor in the School of Media Science, Tokyo University of Technology. She started her career as a research associate at Ochanomizu University and then worked as a postdoctoral researcher at Japan Atomic Energy Research Institute, and as a faculty member at Tohoku University. She received her BS and MS in information sciences and her Ph.D. in the Doctoral Research Course in Human Culture, both from Ochanomizu University. Her research interests include topology-based volume visualization, collaborative visualization, and provenance management.

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