

Visualization of Medical Data: Open Problems



Prof. Dr. Thomas M. Deserno, né Lehmann
Department of Medical Informatics
RWTH Aachen University, Germany

Upcoming Challenges for Visualization

- Data Acquisition
 - Patient to device → device to patient (portable)
 - High-resolution → poor quality (noise)
 - Monolith → multi-sensor (multi-modal)
- Data Sampling
 - One shot → continuous monitoring
- Data Visualization
 - Raw data → model based
 - Workstation → tablet

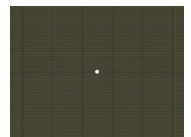
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Example: ECG

- Continuous data acquisition
 - > 24/7 Holter, 12 leads, 1000 Hz, 10 bit
 - > 8 GB (big data)
- Model-based visualization
 - > 600,000 cycles
 - > 30.24 km (50 mm/s)

