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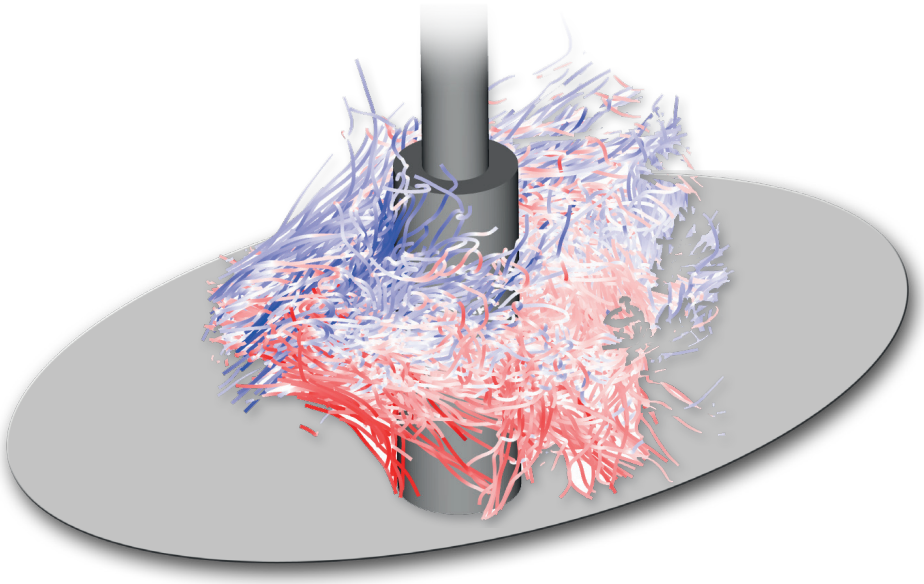
Object-aware STB Data Examples

LaVision presents examples for **Object-aware Shake-the-Box** during the **21st International Symposium on Applications of Laser and Imaging Techniques to Fluid Mechanics** in Lisbon.

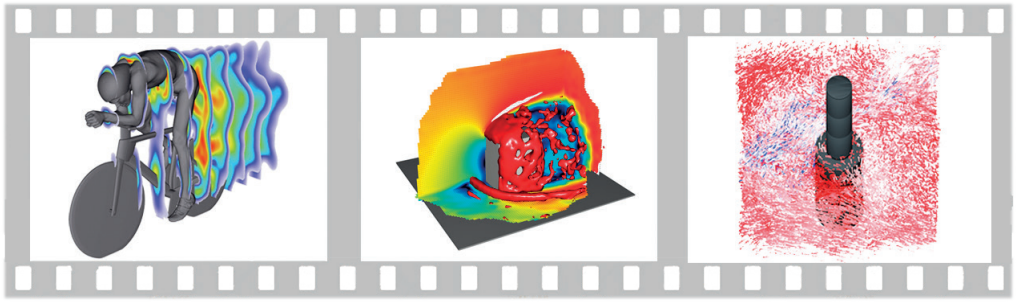
You are invited to view these data and the DaVis capabilities on your own computer. We provide a free copy of our new **DaVis Viewer** including the data set.



360° measurements

LaVision's **Shake-the-Box** technique (developed in cooperation with DLR Göttingen) is extended by a unique **Object-aware Shake-the-Box** (**OA-STB**) approach, which seamlessly integrates solid object information during the tracer trajectory reconstruction process. This enables the flow field characterization for various fluid-structure interaction applications, for which both upstream and downstream information can be acquired simultaneously.

With a multi-camera set-up covering the complete surrounding of the object of interest, **OA-STB** offers the possibility to perform instantaneous 360° flow field measurements without the need of scanning the measurement system at several unobstructed locations. The unique **OA-STB** approach leads to a continuous flow representation without reconstruction artifacts at the interfaces of differently covered sub-domains of the measurement field.



Cyclist data courtesy:
L. Hendriksen, Aerodynamics Group
TU Delft

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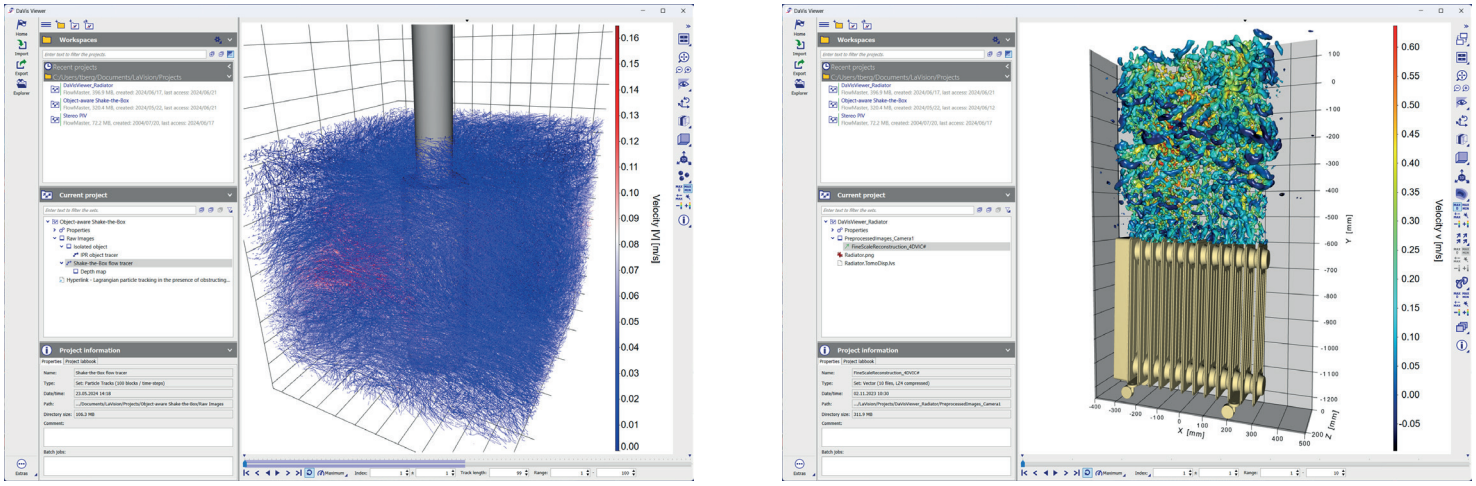
CAD visualization in DaVis

In addition to the computational benefits of using object information for flow reconstruction, DaVis also offers the possibility to visualize the CAD models together with your measurement results. The simultaneous visualization of flow field and object data greatly improves the interpretability of the physics involved. Both, visualization alongside vector fields and particle trajectories are supported.



Novel CAD display alongside particle trajectories (left) and volumetric vector fields (right).

Get a free sample of the OA-STB data today!

Please feel free to attend the following talk to learn more about the new **Object-aware Shake-the-Box** technique: „Volumetric flow field measurements around a stepped cylinder with an object-aware Lagrangian particle tracking approach“, *T. Rockstroh*, **Volumetric PIV/PTV Applications**, Thursday, July 11, 11:30-13:00.

Data presented there are available to be used with our **DaVis Viewer**.

LaVision‘s **DaVis Viewer** is a free-to-use tool for

- Visualization of DaVis data
- Export DaVis data to image, video and other formats
- Import of other formats into DaVis projects

Our DaVis Viewer „Lisbon-Edition“

Curious about the **OA-STB** data after the talk? Download our free-of-charge „Lisbon-Edition“ of the **DaVis Viewer** from our website right away.

www.lavision.com/davisviewer

June-24

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