

DaVE

A curated Database of Visualization Examples

NHR Pathfinder Project

Introduction

Visualization is used throughout all scientific domains for efficient analysis of data and experiments. Learning, understanding, implementing, and applying suitable, state-of-the-art visualization techniques in HPC projects takes time and a high level of technological ability and experience.

Description

DaVE sets out to offer a [user-friendly](#) resource with detailed [descriptions](#), [samples](#), and HPC-specific [implementations](#) of visualization methods. It simplifies method discovery with tags and encourages collaboration to foster a platform for sharing best practices and staying updated thus filling a crucial gap in the HPC community by providing a central resource for advanced visualization.

To achieve this, DaVE has to tackle the following challenges:

- A [technical realization](#) of a searchable database
- Initial [selection, classification and addition](#) of information
- Establish the DaVE database as a [known and actively developed](#) community resource

Project Phases

Phase 1 - Technical Foundation

- [Database and website creation](#) leading to a functional and extensible back- and frontend solution
- Develop [container template system](#) as well as [integration recipes](#) considering broadly applicable visualization solutions

Phase 2 - Content Analysis and Addition

- [Questionnaire creation](#) focusing on questions such as
 - the current role of visualization in the work of users
 - known or applied visualization techniques
 - data / domain requirements and challenges
- Execute a [community survey](#) including all NHR centers leading to task prioritization, links and insights
- [Database population](#)

Phase 3 - System Promotion

- [System release](#) within available media outreach
- [Workshops](#) and [academic events](#) used to promote and extend DaVE within the HPC and visualization community

Key Aspects

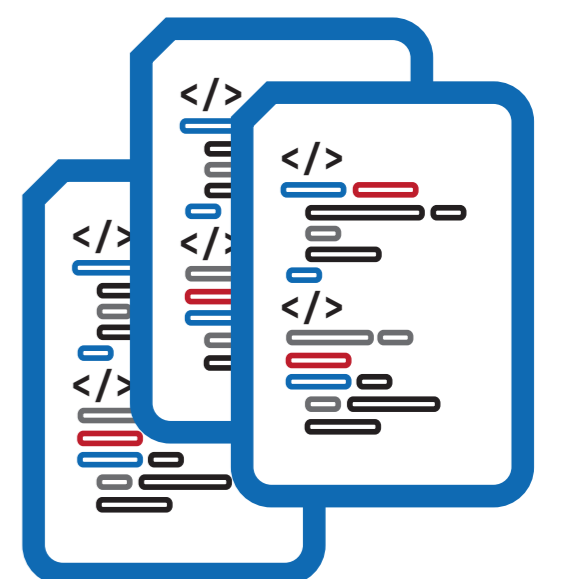
Searchable Curated Database

- Technique selection based on [broad evaluation](#) of needs and challenges of [HPC users](#) and [visualization experts](#).
- Search terms based on [domain, data type](#), or [technical requirements](#)



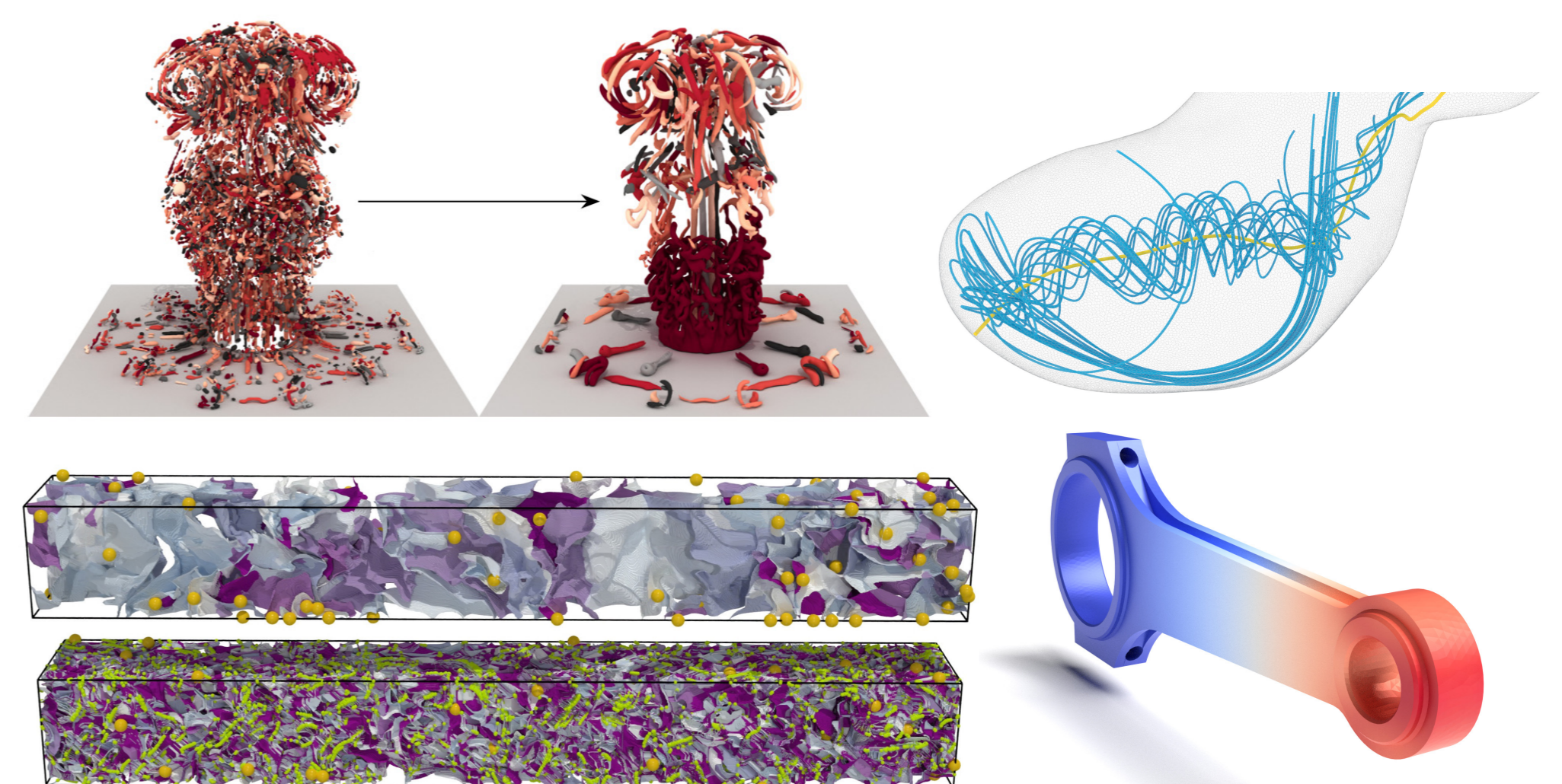
Descriptions, Examples and Containered Code

- [Descriptions, examples and resources](#) allow to find suitable visualization techniques
- [Adaptable container templates](#) and [recipes](#) for quick and easy integration with HPC applications and HPC workflow



State-of-the-Art Visualizations

- Efficient, community-proven techniques for instant use and data exploration



Help Us Grow DaVE

Help us fill DaVE with resources that are relevant to [your](#) work!

Scan the QR code and participate in our 5-minute questionnaire which will help us better understand current needs and challenges of HPC users.

