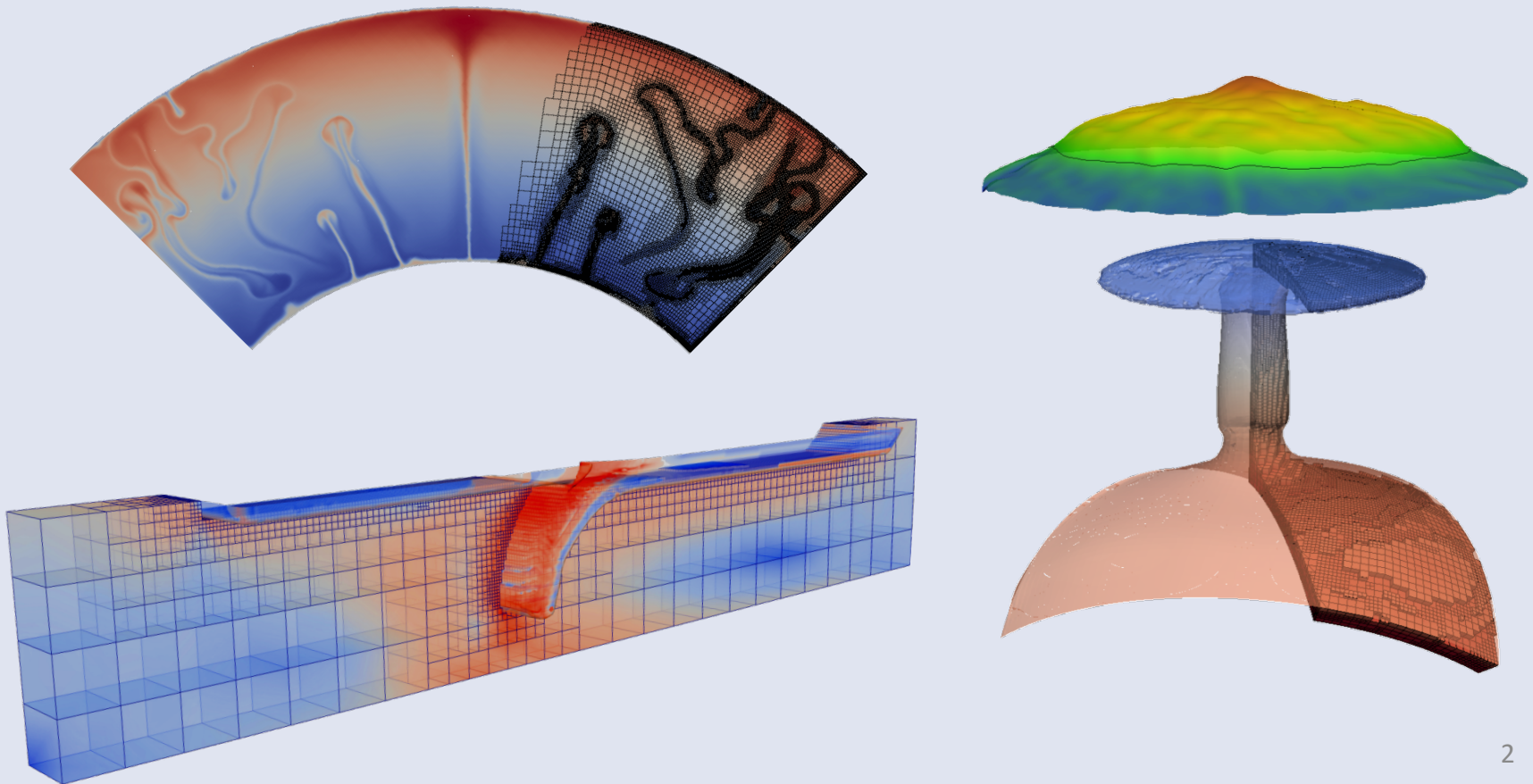


# What is Aspect?

## ASPECT

- Advanced Solver for Problems in Earth's Convection -



- ❖ **Modern numerical methods:**  
adaptive mesh refinement, linear and nonlinear solvers,  
higher-order discretizations, stabilization schemes
- ❖ **Usability and extensibility:**  
manual: 450+ pages, ~40 cookbooks/examples  
plugin architecture
- ❖ **Parallel scalability**
- ❖ **Building on others' work:**  
tested foundation, smaller codebase, automatic  
improvements
- ❖ **Community:**  
GPL, developed in the open  
Encourage contributions, be welcoming

# Credits

## Website and manual:

[aspect.geodynamics.org](http://aspect.geodynamics.org)

## Maintainers:

Wolfgang Bangerth,  
Juliane Dannberg,  
Timo Heister, Rene Gassmöller

**Contributors:** many more (~45)

## Publications: (~30)

- Kronbichler, Heister, Bangerth:  
“High Accuracy Mantle Convection  
Simulation through Modern  
Numerical Methods”.  
*Geophysical Journal International*, 2012.
- Heister, Dannberg, Gassmoeller, Bangerth: “High Accuracy Mantle Convection  
Simulation through Modern Numerical Methods. II: Realistic Models and  
Problems”. *Geophysical Journal International*, 2017.

