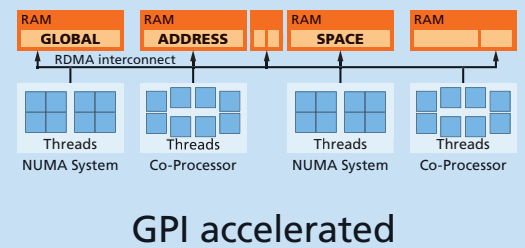
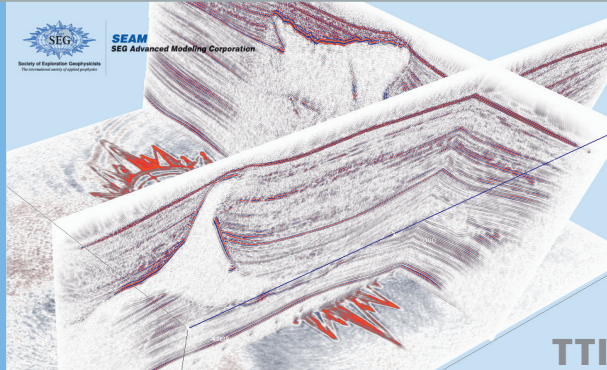




## Scalable Reverse Time Migration



## FRTM WITHOUT I/O OR THROUGHPUT BOTTLENECKS

- Acoustic isotropic, VTI and TTI
- 3D/2D migration
- Subsurface angle gathers
- Adaptive stacking
- Extreme scalability on shot level
- Minimal I/O through RVP boundary conditions

### SDPA enabled

- Failure-tolerant execution
- Node allocation/removal during job runtime
- Integration of pre- and post migration workflows

### Fraunhofer-Institut für Techno- und Wirtschaftsmathematik ITWM

Fraunhofer-Platz 1  
67663 Kaiserslautern  
Germany

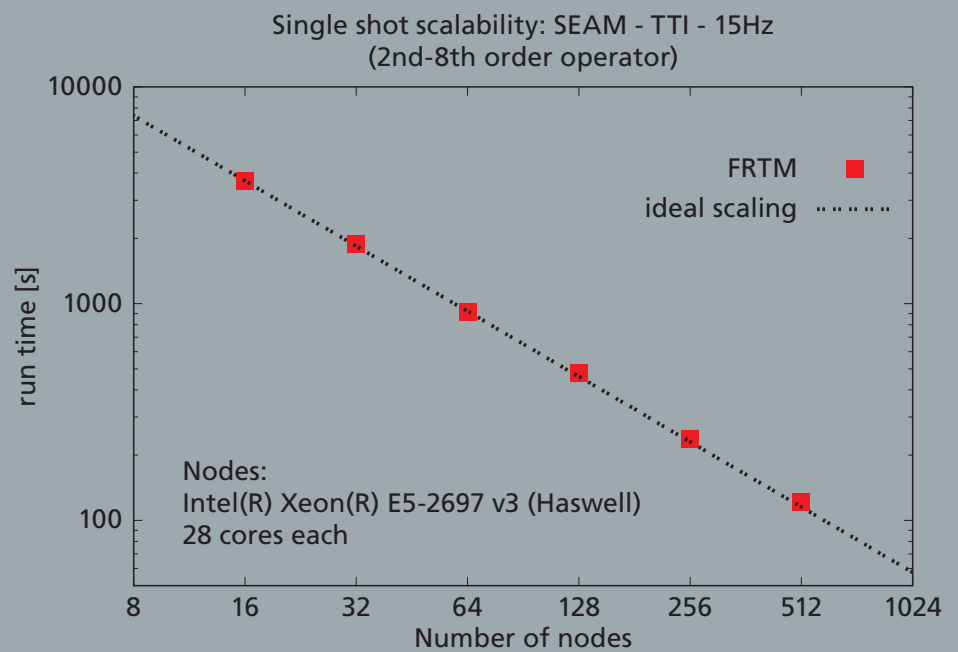
#### Contact

Dr. Daniel Grünewald  
Phone +49 631 31600-45 19  
daniel.gruenewald@itwm.fraunhofer.de

Dr. Norman Etrich  
Phone +49 631 31600-46 26  
norman.etrich@itwm.fraunhofer.de

[www.itwm.fraunhofer.de/hpc](http://www.itwm.fraunhofer.de/hpc)

## Seam single shot TTI migration done in 120 sec!



## RTM READY FOR INTERACTIVE MODEL BUILDING

The outstanding scalability is achieved by the Asynchronous Constraint Execution (ACE) framework, which implements

- Fine granular domain decomposition
- Efficient task parallelism
- Full overlap of communication with computation by GPI
- Support for heterogeneous systems
- GPU / Accelerator ready
- Highly optimized FD-stencils
- Avoiding I/O

**We can integrate your RTM into ACE !**