



# 2018 Workshop on Fortran Modernization for Scientific Application (ForMoSA) @ University of Zurich Day 2 – Wrap-up

Mikko Byckling, EMEA HPC  
Hans Pabst, EMEA HPC  
June 6<sup>th</sup>-8<sup>th</sup> 2018  
Zurich, Switzerland

# Day 2: Topics

- Fortran 2003 has well-defined interoperability interfaces
  - Recommendation: try to move away from using legacy hacks and use `ISO_C_BINDING`
- Different levels of parallelism in a modern HPC system
  - SIMD – Thread - Node
  - Accelerators (not covered)

# Day 2: Related Topics (not covered)

- Advanced interoperability
  - Function pointers, advanced usage of `ISO_C_BINDING` module
  - Fortran 2018 interoperability additions
- Node to node parallelism
  - Message-Passing Interface (MPI)
    - MPI 3.0 Fortran 2008 bindings (`mpi_f08` module)
  - Fortran coarrays (Fortran 2008/2018 standards)

