



Leibniz-Rechenzentrum
der Bayerischen Akademie der Wissenschaften



Recent Advances in Parallel Programming Languages

Workshop @ LRZ, 8.6.2015

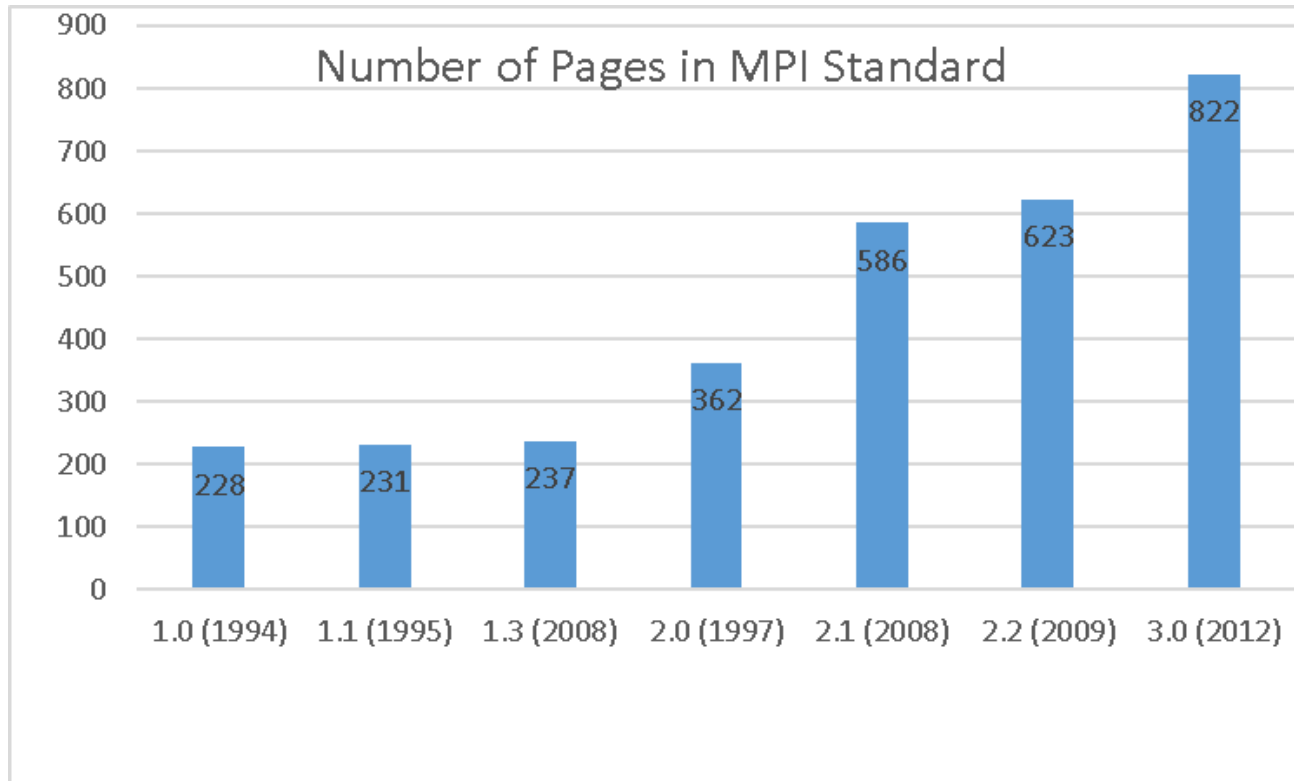


Information

- **Workshop Site:**
LRZ, Boltzmannstr. 1, 85748 Garching b. München
Hörsaal (Lecture hall)
- **Coffee:**
machine @ LRZ (ground floor, left side if you go West)
- **Lunch Possibilities:**
 - FMI bistro (next door, north of LRZ, TUM's math & informatics department)
Boltzmannstr. 3, <http://www.betriebsrestaurant-gmbh.de/>
 - PePane Snacks (near entrance of Max Planck Astrophysics, east of LRZ)
<http://www.pepane-snack.de/>
 - kiosks near subway station (north-east of LRZ)
- We kindly ask you not to bring any drinks or food into the lecture hall.

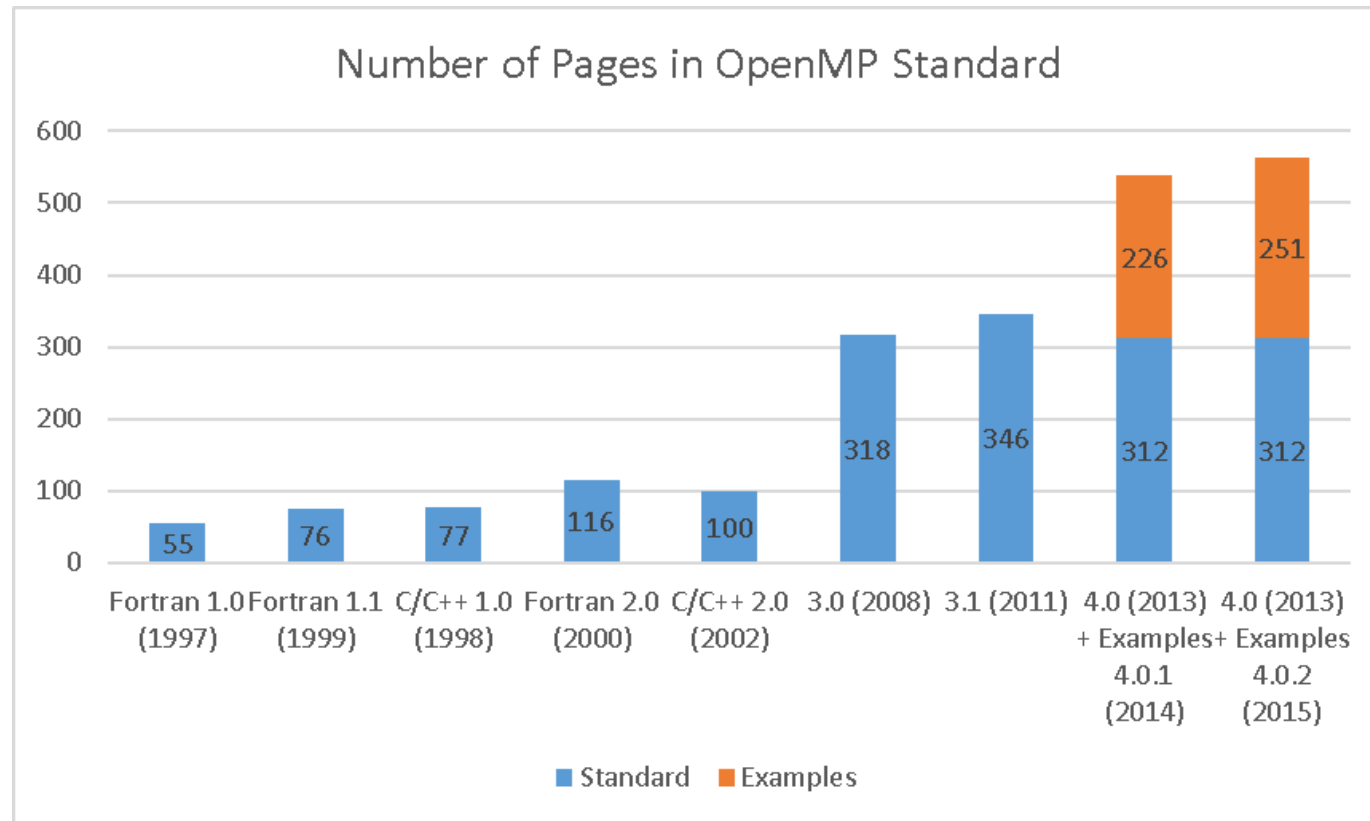
- **Workshop Webpage:**
http://www.lrz.de/services/compute/courses/x_lecturenotes/Parallel_Programming_Languages_Workshop/
- **Slides:**
Will be published on the Workshop Webpage.
- **Certificates:**
Will be provided after the workshop.
- **Contact:**
Dr. Volker Weinberg, weinberg@lrz.de

Development of the MPI Standard



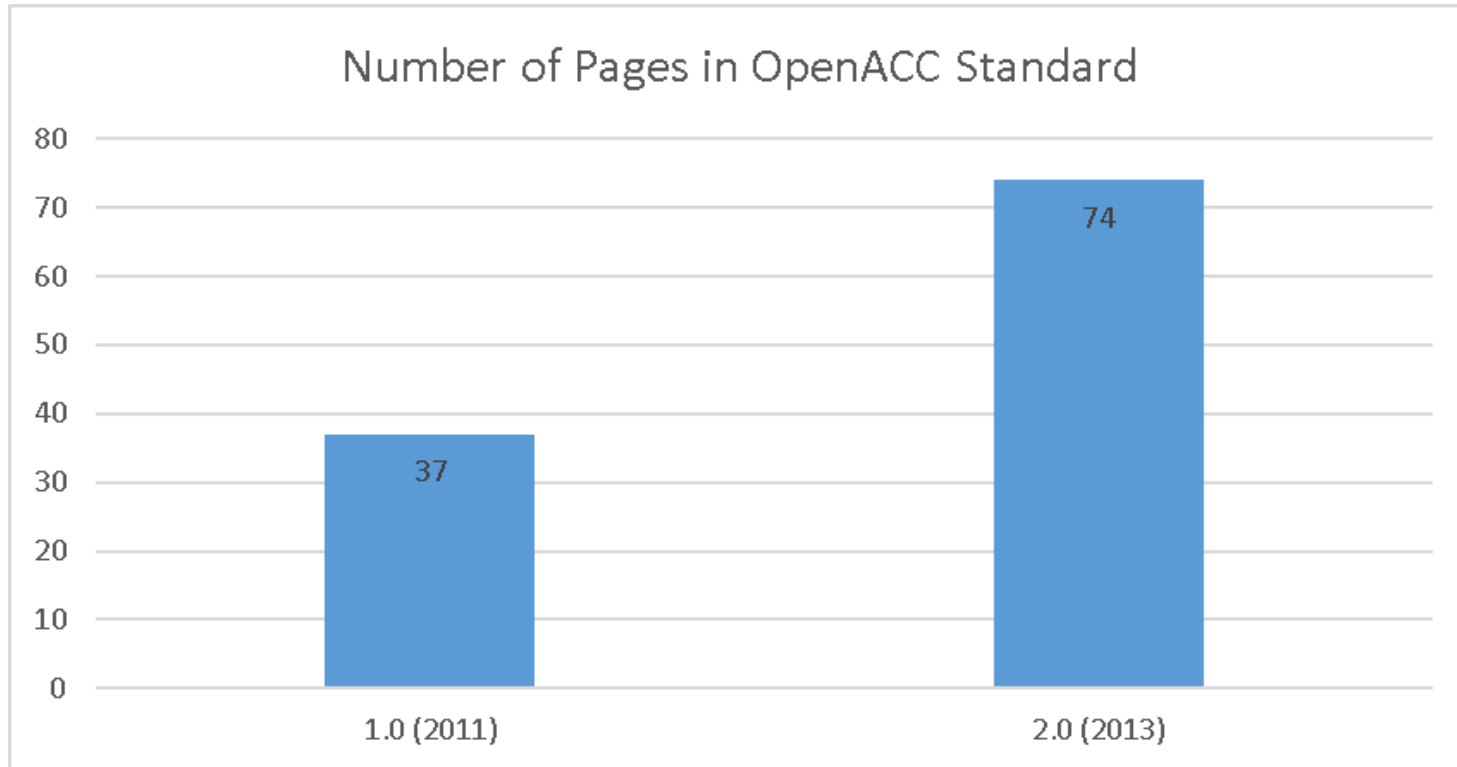
Development of the number of pages in the MPI standard.

Development of the OpenMP Standard



Development of the number of pages in the OpenMP standard. Mind that the former separate Fortran and C versions have been merged into 1 document starting with version 3.0. Since 4.0 the Examples (shown in orange) have been put into a separate document.

Development of the OpenACC Standard



Development of the number of pages in the OpenACC standard.



Comparison of Number of Pages in Recent Standards

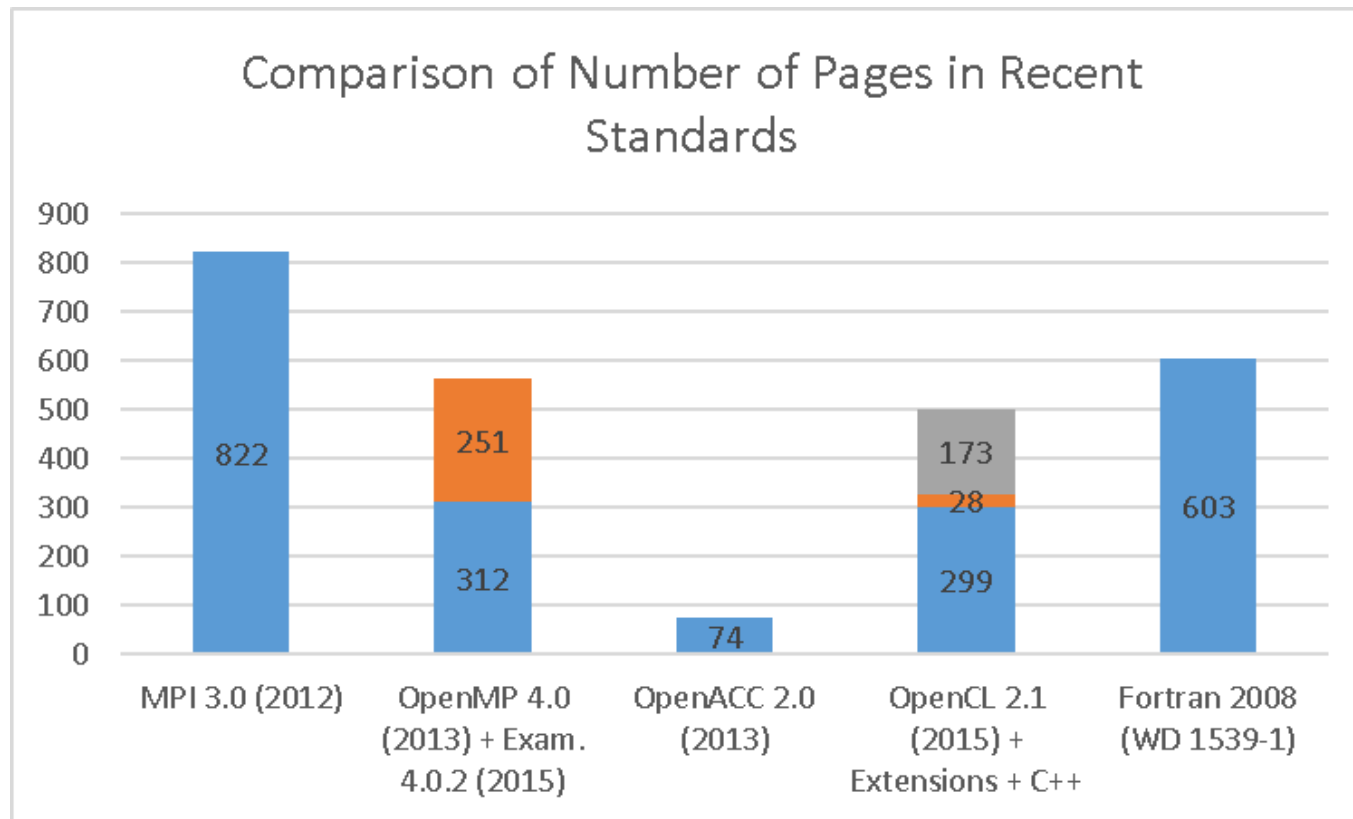


Figure 1: Comparison of the number of pages in recent standards.



Presenters

- Presenters:
 - Dr. Reinhold Bader, LRZ
 - Dr.-Ing. Michael Klemm, Intel Corp.
 - Dr. Mandes Schönherr, Cray Inc.
 - Dr. Rolf Rabenseifner, HLRS



Tentative Schedule

- 09:00 Welcome
- 09:10-10:10 **Extensions of Coarray Fortran** (Dr. Reinhold Bader, LRZ)
- 10:10-10:30 Q&A + Break

- 10:30-11:30 **Past, Present, and Future of OpenMP** (Dr.-Ing. Michael Klemm, Intel)
- 11:30-12:00 Q&A & Group picture before main entrance

- 12:00-13:00 Lunch Break

- 13:00-14:00 **OpenACC** (Dr. Mandes Schönherr, Cray)
- 14:00-14:30 Q&A + Break
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- 14:30-15:30 **MPI 3.0/3.1** (Dr. Rolf Rabenseifner, HLRS)
- 15:30-16:00 Q&A + Wrap-Up



And now ...

Enjoy the workshop!



Upcoming courses @ LRZ

See <http://www.lrz.de/services/compute/courses/>

- **Introduction to OpenFOAM**
Tuesday, June 9 - Thursday, June 11, 2015 9:00-17:00
- **PRACE PATC Course: Advanced Fortran Topics**
Monday, September 14, 2015 - Friday, September 18, 2015, 8:30 - 18:00
- **Compact Course: Iterative Linear Solvers and Parallelization**
Monday, September 7, 08:30 - Friday, September 11, 2015, 15:30
- **PRACE PATC Course: Node-Level Performance Engineering**
Thursday, December 10 - Friday, December 11, 2015, 9:00 - 17:00
- **Programming with Fortran**
Monday, February 8 - Friday, February 12, 2016, 9:00-18:00
- **Parallel Programming of High Performance Systems**
Monday, March 7 - Friday, March 11, 2016, 9:00-18:00
- **PRACE PATC Course: Advanced Topics in High Performance Computing**
Monday, April 4, 2016 - Thursday, April 7, 2016, 9:00-18:00



Hope to see you again at LRZ!