Kompaktkurs Iterative Gleichungssystemlöser und Parallelisierung

	Montag	Dienstag	Mittwoch	Donnerstag	Freitag	
08:30 – 08:45	**08.30 – 09.00 Registration [Foyer]**	08.30 – 09.00 Rabenseifner: Access to Computing Centers [9]	08.30 – 10.00 Meister: Klassische Splitting-Methoden I [Buch von Andreas Meister]	08.30 – 09.45 Meister: Die Prinzipien des Mehrgitterverfahrens	08.30-9.45 Rabenseifner: Parallelization of Explicit and Implicit Solvers [38a]	08:30 – 08:45
08:45 – 09:00						08:45 – 09:00
09:00 – 09:15	**09.00 – 09.15 Eröffnung [1]**	09.00-10.10 Rabenseifner: Virtual Topologies [3 – Chap. 6]				09:00 – 09:15
09:15 – 09:30	09.15-10.10 Rabenseifner: Parallel Architectures and Programming Models [2]					09:15 – 09:30
09:30 – 09:45						09:30 – 09:45
09:45 – 10:00				**09.45 – 10.00 Pause**	**09.45 – 10.00 Pause**	09:45 – 10:00
10:00 – 10:15	**10.10 – 10.25 Pause**	**10.10 – 10.25 Pause**	**10.00 – 10.15 Pause**	10.00 – 11.30 Meister: GMRES, BiCG, CGS, BiCGStab-Verfahren	10:00-12 .00 Rabenseifner: Laplace-Example with MPI and PETSc (a) Introduction (b) Writing a parallel MPI program with a CG solver [42 – Chap. 1+2]	10:00 – 10:15
10:15 – 10:30	10.25-12.00 Rabenseifner: MPI Overview and Process Model [3 – Chap. 1+2]	10.25-11.00 Rabenseifner: Collective Communication [3 – Chap. 7]	10.15 – 11.30 Meister: Klassische Splitting-Methoden II			10:15 – 10:30
10:30 – 10:45						10:30 – 10:45
10:45 – 11.00						10:45 – 11.00
11:00 – 11:15		**11.00 – 11.15 Pause**				11:00 – 11:15
11:15 – 11:30		11.15-12.00 Rabenseifner: Other MPI-1 features and Heat Conduction program [3 – Chap. 8] + [6]				11:15 – 11:30
11:30 – 11:45			**11.30 – 11.45 Pause**	**11.30 – 11.45 Pause**		11:30 – 11:45
11:45 – 12.00			11:45 – 13:00 Übungen 1+2: Jakobi-Verfahren	11.45 – 13.00 Übungen 5+6: Mehrgitterverfahren, Krylov-Unterraum-Verfahren		11:45 – 12.00
12:00 – 12:15	**12.00 – 13.00 Mittagspause**	**12.00 – 13.00 Mittagspause**			**12.00 – 13.00 Mittagspause**	12:00 – 12:15
12:15 – 12:30						12:15 – 12:30
12:30 – 12:45						12:30 – 12:45
12:45 – 13:00						12:45 – 13:00
13:00 – 13:15	13.00-14.15 Rabenseifner: Messages and Point-to-Point Communication [3 – Chap. 3]	13.00-14.00 Rabenseifner: OpenMP – Overview and execution model [7]	**13.00 – 14.00 Mittagspause**	**13.00 – 13.45 Mittagspause**	13.00-14.00 Rabenseifner: PETSc Tutorial [41]	13:00 – 13:15
13:15 – 13:30						13:15 – 13:30
13:30 – 13:45						13:30 – 13:45
13:45 – 14:00				13.45 – 14.45 Meister: Präkonditionierung Teil 1		13:45 – 14:00
14:00 – 14:15		**14.00 – 14.15 Pause**	14.00 – 15.15 Meister: CG-Verfahren		**14.00 – 14.15 Pause**	14:00 – 14:15
14:15 – 14:30	**14.15 – 14.30 Pause**	14.15-15.15 Rabenseifner: OpenMP – Work sharing [7]			14.15-15.15 Rabenseifner: (c) Laplace-Example with PETSc [42 – Chap. 3]	14:15 – 14:30
14:30 – 14:45	14.30-15.45 Rabenseifner: Non-Blocking Communication [3 – Chap. 4]			**14.45 – 15.00 Pause**		14:30 – 14:45
14:45 – 15:00				15.00 – 15.45 Meister: Präkonditionierung Teil 1		14:45 – 15:00
15.00 – 15.15						15.00 – 15.15
15:15 – 15:30		15.15-16.00 Rabenseifner: OpenMP – Data environment and combined constructs [7]	**15.15 – 15.30 Pause**		Summary and Q&A	15:15 – 15.30
15:30 – 15:45			15:30 – 17:30 Übungen 3+4: CG-Verfahren		Mi.+Do.: Übungen basierend auf MatLab Mo.+Di.+ Fr.: Übungen wahlweise in C oder Fortran	15:30 – 15:45
15:45 – 16:00	**15.45 – 16.00 Pause**			15.45 – 16.00: Q&A		15:45 – 16:00
16:00 – 16:15	16.00-17.00 Rabenseifner: Derived Datatypes [3 – Chap. 5]	**16.00 – 16.15 Pause**		**16.00 – 16.15 Pause**		16:00 – 16:15
16:15 – 16:30		16.15-18:00 Rabenseifner: OpenMP – Pitfalls, Intel Inspector [7] + [8]		16.15 – 17:30 Rabenseifner: MPI-2 und MPI-3		16:15 – 16:30
16:30 – 16:45						16:30 – 16:45
16:45 – 17:00						16:45 – 17:00
17:00 – 17:15	17.00-17:30 Rabenseifner: Parallel debugging [5]					17:00 – 17:15
17:15 – 17:30						17:15 – 17:30