FB Angewandte Informatik **SS 2003**
Veranstaltungsankündigung

Parallel Algorithms

Dozent/−in:	Prof. Dr. Berrendorf
Zuordnung:	Master CS, 1. Sem., WP (Wahlpflicht), Credits: 5 / 10 Master CS, 2. Sem., WP (Wahlpflicht), Credits: 5 / 10 Master CS, 3. Sem., WP (Wahlpflicht), Credits: 5 / 5
Abschluss:	1./2. Semester: Leistungsnachweis, 3. Semester: Prüfung
Umfang:	2 SWS Vorlesung, 1 SWS Praktikum

Termin− und Ortsangaben entnehmen Sie bitte dem Stundenplan, sobald dieser verfügbar ist.

Veranstaltungsdetails:

Voraussetzungen:	Knowledge in algorithm design and complexity analysis, programming experience in C and Java.
Lernziele:	Students should be able to design and assess non−numerical parallel algorithms and suitable data structures for given problems to speed up computation.
Inhalt:	The lecture treats advanced design concepts for parallel algorithms with an emphasis on non−numerical algorithms. Starting with principal questions on parallelism, we discuss theoretical programming models (PRAM, BSP, LogP) well−suited for complexity considerations in the parallel world. Based on this basic knowledge several design techniques for parallel algorithms are introduced and evaluated. During the practical training students must implement and evaluate parallel algorithms.
Arbeitsaufwand:	3 SWS course plus 5 SWS additional work
Anforderungen:	The Leistungsnachweis is passed if 80% of the assignments are solved, and an oral examination at the end of the course is passed.
Sonstiges:	Course language is english.
Literatur:	A list of relevant literature will be presented in the first lecture.

Stand: 2003−02−26, 09:32:33