

**Summer School on Simultaneous Localisation And Mapping**  
**August 3-7 2004**  
**PROGRAM**

**Tuesday, Aug 3**

8:00-8:30		Registration
8:30 – 9:30	R. Chatila	General introduction to the SLAM problem. and Representational issues
9:30 – 10:45	A. Monin	Introduction to filtering theory and techniques
10:45 – 11:00		Coffee Break
11:00 - 12.15	S. Thrun	SLAM basic math (1)
12:15 – 13:45		Lunch
13.45 - 14.45	S. Thrun	SLAM basic math (2)
14:45 – 16:15	P. Newman	EKF based SLAM
16:15 – 16:30		Coffee Break
16:30-18:30	<a href="#">E. Nebot, P. Newman, J. Neira</a> <a href="#">J. Tardos, M. Devy</a>	<a href="#">Practical Exercises: Basic EKF SLAM</a>
18:30 – 19:30		Reception at LAAS

**Wednesday, Aug 4**

8:30 – 9:30	H. Christensen	Feature extraction
9:30 – 10:45	J. Neira	Data Association
10:45 – 11:00		Coffee Break
11:00 - 12.15	S. Thrun	Particle Filter techniques
12:15 – 13:45		Lunch
13.45 - 15.00	K. Konolige	CPE SLAM
15:00 – 15:15		Coffee Break
15:15 –16:15	P. Newman	Building / deploying SLAM systems
16:15-18:30	<a href="#">Kurt Konolige</a> <a href="#">M. Devy</a>	<a href="#">Practical Exercises: CPE SLAM</a>

### Thursday, Aug 5

8:30 – 9:30	H. Christensen	Robust SLAM
9:30 – 10:45	J. Leonard	Large-scale SLAM
10:45 – 11:00		Coffee Break
11:00 - 12.15	E. Nebot	Dense SLAM
12:15 – 13:45		Lunch
13:45 – 16:15	H. Christensen E. Nebot M. Devy J. Leonard	Applications of SLAM (indoors, field, air, subsea)
16:15 – 16:30		Coffee Break
16:30-18:30	Students	Poster session, on going projects.
19:30-23:00		School dinner

### Friday, Aug 6

8:30 – 9:30	W. Burgard	Efficient Approaches to Rao-Blackwellized Mapping with Grid Maps
9:30 – 10:45	A. Davison	SLAM with vision
10:45 – 11:00		Coffee Break
11:00 - 12.15	S. Sukkarieh	6 DoF SLAM and inertial SLAM
12:15 – 13:45		Lunch
13:45 – 15:15	J. D. Tardos	Mapping large loops
15:15 – 15:30		Coffee Break
15:30 – 17:00	W. Burgard, E. Nebot	Practical Exercices: FastSlam
17:00-18:30	J. Neira J. Tardos M. Devy	Practical Exercices: Data association

### Saturday, Aug 7

8:30 – 9:30	W. Burgard	Mapping in Dynamic Environments
9:30 – 10:45	K. Konolige	Cooperative SLAM
10:45 – 11:00		Coffee Break
11:00 - 12.30	J. Tardos J. Neira M. Devy W. Burgard K. Konolige R. Chatila	Open issues and problems; Farewell
12:30 – 13:30		Lunch Buffet