Fundamental Satellite Based Positioning
Autumn 2011

Date	Time	Contents	Pages	*M*-files
23/9	10:15–12:00	The System, GPS Time	297–313, intro_GPS.pdf	`easy1, comptime, doy, get_eph, gps_time, julday, satconst`
14/10	10:15–12:00	Keplerian Orbit, Computation of Satellite Position	easy1-sol.pdf, 316–321	`easy2, check_t, edata, find_eph, run, satpos`
28/10	10:15–12:00	Observables and Computation of Receiver Position	easy2-sol.pdf, 322–329	`easy3`
11/11	10:15–12:00	Error Sources	easy3-sol.pdf, 338–348	`easy10, easy16`
6/12	10:15–12:00	Mathematical Models for Positioning	easy4-sol.pdf, 382–391	`baseline, easy3, easy4, recpo_ls, easy15`
8/12	10:15–12:00	Dilution of Position, Topocentric Coordinates, Variance Transformation	334–337	`easy9`
9/12	9:00–10:45	Ambiguity resolution	397–409, 425–426, ambiguit.pdf	`easy6, easy12`
13/12	9:00–10:45	Real Time Kinematic GPS	–	`rtk1`
15/12	9:00–10:45	Frames	417–424	`cart2geo, geo2cart, frgeod, togeod`
16/12	9:00–10:45	Geoidal undulation	–	

The *M*-files can be downloaded from `gps.aau.dk/~borre/masters/gps`

All lectures are given at Fredrik Bajers Vej 3, room 2-103, except on December 15 at Fredrik Bajers Vej 7, room B2–107.

Literature

Kai Borre and Gilbert Strang: *Algorithms for Global Positioning*. Wellesley-Cambridge Press, 2012.