

## TSDT14 Signal Theory

### Tutorial Plan Autumn 2018

These are suggested tasks, from the course book, suitable to solve during the tutorials in Signal Theory. Tasks in parentheses are recommended for home studies. All tasks in the book are good problems for the course. You should see this list as a suitable selection.

<b>Tutorial</b>	<b>Contents</b>	<b>Tasks</b>
1	Repetition Signals & Systems	2.5b, 2.13b, 2.16c, 2.17c, 2.18c, (2.4, 2.6b, 2.8, 2.22, 2.23)
	Repetition Stochastic Variables	3.1, 3.5, 3.9, 3.15, (3.4, 3.14)
2	Stochastic Signals	4.2, 4.3, 4.4, 4.9, 4.10, 4.16, 4.17, (4.5, 4.6, 4.7, 4.12, 4.13, 4.14)
3	LTI Filtering, Continuous time	5.1, 5.3, 5.4, 5.5, 5.7, 5.12, 5.15, (5.2, 5.8, 5.11, 5.13, 5.17)
4	LTI Filtering, Discrete time	5.18, 5.20, 5.21, 5.22, 5.24, 5.25, (5.19, 5.23, 5.26, 5.27, 5.28)
5	Cross correlation, prediction and Poisson processes	5.9, 5.29, tasks from course room.
6	Non-linear filtering	7.1, 7.3, 7.5, 7.7, 7.10 (7.2, 7.6, 7.8, 7.9)
7	Non-linear filtering	7.11, 7.12, 7.13, 7.15
8	Modulation	8.1, 8.3, 8.4, 8.6 (8.2, 8.5)
9	Sampling and PAM	6.1, 6.3, 6.5, 6.6, 6.8, 6.9 (6.2, 6.4, 6.7)
10	Reconstruction	6.11, 6.12, 6.13
11	Multi-Dimensional Processes	9.1, 9.2, 9.5, 9.6, 9.9, (9.3, 9.4, 9.7, 9.10)
12	Complex processes	Tasks from course room.