



## *Frequency Domain Techniques for Antenna Analysis*

### *Monday 11*

9:00 – 09:30			<i>welcome</i>
9:30 – 10:00	A. Freni	30'	An overview on frequency domain methods
10:00 – 10:30	A. Freni	30'	Mathematical aspects common to any frequency domain method Part I
10:30 – 10:45			<i>coffee break</i>
10:45 – 12:45	A. Freni	120'	Mathematical aspects common to any frequency domain method Part II
12:45 – 14:45			<i>lunch</i>
14:45 – 16:15	A. Freni	90'	Mathematical aspects common to any frequency domain method Part III
16:15 – 16:30			<i>coffee break</i>
16:30 – 17:30	A. Freni	60'	General Galerkin method. Quizzes and guided discussion

### *Tuesday 12*

09:00 – 10:30	A. Freni	90'	Review of basics of linear system solvers
10:30 – 10:45			<i>coffee break</i>
10:45 – 12:45	Z. Sipus	120'	An introduction to Method of Moments
12:45 – 14:45			<i>lunch</i>
14:45 – 15:45	Z. Sipus	60'	Construction of Moment Method programs
15:45 – 16:00			<i>coffee break</i>
16:00 – 17:30	Z. Sipus	90'	Examples of development of Moment Method codes (thin wire antennas, slot antennas). Quizzes and guided discussion

### *Wednesday 13*

09:00 – 10:30	A. Skrivervik	90'	Green's function of periodic structures
10:30 – 10:45			<i>coffee break</i>
10:45 – 12:45	A. Skrivervik	120'	Solution of periodic structures
12:45 – 14:45			<i>lunch</i>
14:45 – 16:15	E. A. Attardo	90'	Free space Green's function example: the horn problem
16:15 – 16:30			<i>coffee break</i>
16:30 – 18:00	M. Bandinelli	90'	Special acceleration techniques for large array modelling: theoretical overview and application examples

### *Thursday 14*

09:00 – 10:30	Z. Sipus/A. Skrivervik	90'	Moment Method code exercise.
10:30 – 10:45			<i>coffee break</i>
10:45 – 12:00	Z. Sipus	45'	Analysis of lenses and focalizing structures
12:00 – 12:45	E. A. Attardo	45'	Optic methods in FEKO® focusing: advantages/disadvantages and typical applications
12:45 – 14:45			<i>lunch</i>
14:45 – 16:15	J. R. Mosig	90'	Mixed Potential formulations of some integral equations in Electromagnetics: free space problems. I) Basics
16:15 – 16:30			<i>coffee break</i>
16:30 – 18:00	J. R. Mosig	90'	Mixed Potential formulations of some integral equations in Electromagnetics: free space problems. II) Advanced topics
20:00 –			<i>course dinner</i>

### *Friday 15*

09:00 – 10:30	J. R. Mosig	90'	Mixed Potential formulations of some integral equations in Electromagnetics: planar stratified media problems. I) Basics
10:30 – 10:45			<i>coffee break</i>
10:45 – 12:15	J. R. Mosig	90'	Mixed Potential formulations of some integral equations in Electromagnetics: 3D problems, lenses, MRI and health applications
12:15 – 13:00			<i>Final test and wrap-up</i>