6.1 Analysis of frequency selective surfaces

Quiz

Answer these questions to get feedback on how well you understand the course. Only one of the answers is correct. You don't have to answer every question. If you don't know the answer you can just leave it blank (default option: "I won't answer this question") and this won't affect your score. Answering **correctly** will **add 2 points** to your score but on the other hand you'll **lose 1 point** if your answer is **wrong**. The questions are divided in groups of five questions.

Press **See result** after you have finished answering.

Displaying questions **1**..**5** of **5**:

Question 1

Frequency selective surfaces …

Possible answers for question 1:

- ○ … are used to amplify electromagnetic waves.
- ○ … can behave as a perfect mirror at one frequency, and as a free space at another frequency.
- ○ … are sensitive to frequencies and insensitive to polarizations of waves.
- ◉ I won't answer this question

Question 2

For the analysis of FSS, we usually use …

Possible answers for question 2:

- ○ … the frequency domain method of moments.
- ○ … the time-domain moment method.
- ○ … the spectral domain method of moments.
- ◉ I won't answer this question

Question 3

The suppression of wave transitions at given frequencies is caused …

Possible answers for question 3:

- ○ … by destructive interferences of waves radiated by currents induced on FSS elements.
- ○ … increasing losses in metallic and dielectric parts of the FSS.
- ○ … by the critical frequency of waveguides formed by FSS elements.
- ◉ I won't answer this question

Question 4

Current distribution on the FSS elements can be approximated in terms of …

Possible answers for question 4:

- ○ … harmonic and Chebychev basis functions.
- ○ … piecewise constant basis functions.
- ○ … Dirac pulses.
- ◉ I won't answer this question

Question 5

Analysis of rectangular slots in a metallic plane and rectangular patches on a dielectric plane …

Possible answers for question 5:

- ○ … are the same thanks to the duality principle.
- ○ … have to be performed differently due to the different boundary conditions.
- ○ … are similar, but the magnetic currents require small changes of the algorithm.
- ● I won't answer this question

[see result]