



## W11 Mar 25 (D3) Double roof model

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These questions are presented under the following assumptions:

- They may be selected to be part of the final exam
- Responses must be posted by the students (not me)
- I will call your attention to any mistakes or wrong content posted in response

**N.B.:** This question follows Jürgen Teich's "[Hardware/Software Codesign: The Past, the Present, and Predicting the Future](#)" , *Proceedings of the IEEE*, Vol. 100, May 13th, 2012.

"Codesign (...) does not only provide important design aids at the system level. At the same time, it should allow to combine existing (semi)automated design steps and interface different abstraction levels to a large degree. Thereby, codesign will accomplish the necessary design refinements automatically, save development time, and allow for the fast verification of the above design steps". The typical abstraction levels herein referred are usually represented in the form of a *double roof model* that was initially introduced by Jürgen Teich in 2000 \*.

1. Present a diagram showing the double roof model (do not forget to name the two abstraction levels and the hardware and software development chains).
2. Explain this diagram according to the citation presented above.

\* Jürgen Teich, "[Embedded System Synthesis and Optimization](#)" , *CiteSeerX*, 2000.

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