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## **Interference effects in BSM Higgs searches (12' + 3')**

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Interference effects between quasi mass-degenerate new particles can significantly modify predictions of their cross sections and decay widths.

In particular in the MSSM, two neutral Higgs bosons can have very similar masses. However, the experimental searches for additional neutral Higgs bosons have so far been restricted to scenarios without interference of nearby resonances.

We discuss how complex phases of MSSM parameters lead to CP-violating mixing and interference effects. As a consequence of a sizeable destructive interference term, some parameter regions, which would appear to be ruled out if the interference were neglected, actually escape the current exclusion bounds from Higgs searches at the LHC.

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