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## Classification of CP-violating operators in SMEFT

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In particle physics, the Standard Model (SM) makes extremely accurate predictions, but experimental and observational results suggest the existence of physics beyond the Standard Model (BSM). For example, the SM cannot explain the baryon number asymmetry because the CP violation in the SM is very small. Therefore, the BSM must have more CP-violating sources than the SM.

We have developed a method to systematically classify operators in the Standard Model Effective Field Theory (SMEFT) based on their CP properties. In this talk, I will explain how the Hilbert series technique can be used in our method.

**Auteur principal:** OKABE, Risshin (Kavli IPMU / U Tokyo)

**Co-auteurs:** M. KONDO, Dan (Kavli IPMU); MURAYAMA, Hitoshi (BerkeleyUSA)

**Orateur:** OKABE, Risshin (Kavli IPMU / U Tokyo)

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