

# {Moduli stabilization and light axion by Siegel modular forms

*Tuesday, August 20, 2024 3:45 PM (2 hours)*

We discuss the stabilization of multiple moduli by utilizing Siegel modular forms in the framework of  $Sp(2g, \mathbb{Z})$  modular invariant theories.

We derive the stationary conditions at CP-conserving fixed points for a generic modular- and CP-invariant scalar potential.

The stabilization of multiple moduli is explicitly demonstrated in  $Sp(4, \mathbb{Z})$  and  $Sp(6, \mathbb{Z})$  modular invariant scalar potential.

Furthermore, it turns out that there exists a light axion when we incorporate radiative corrections to the scalar potential.

**Primary author:** FUNAKOSHI, Shuta (Kyushu university)

**Presenter:** FUNAKOSHI, Shuta (Kyushu university)

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