

Thermal Real Scalar Triplet Dark Matter

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Motivation

- **WIMP** is an attractive DM candidate and intensively being searched for.
- Among WIMP, electroweakly charged one (**EWIMP**), which is expressed as an $SU(2)_L$ -multiplet, is uncharted.
- Among EWIMP, **real scalar triplet** is minimal while not studied very much.

Method

Constraints from

- Landau pole
- Thermal relic abundance
- Collider experiment
- Direct detection
- Indirect detection

are considered paying particular attention to **Sommefeld effect**.

Result

- ‘**WIMP Miracle**’ region is still **surviving** from constraints at present.
- Such region can be effectively **searched for** by **near future** experiments, especially XENONnT .