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CMS combined tt+DM search with 2016 data

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Dark matter production in association with a top quark pair is widely considered the most direct probe of spin-0 mediated dark matter production. A search for tt+DM which incorporates all major decay modes and the first statistical combination of these channels using 35.9/fb collected by the CMS detector in 2016 is presented. The result is the most stringent constraint to date on spin-0 mediated tt+DM, covering significant parameter space and uniquely presented in the mass-mass and couplings-mass planes. The limits set on the scalar mediator are also the strongest result for a collider dark matter search in any final state.

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