Predictions of a fundamental statistical picture, including experimental signatures of a new dark matter WIMP

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As explained in detail in an updated and enhanced version of a previous paper [1], the simplest imaginable statistical picture ultimately leads to standard physics (with the Standard Model supplemented by SO(10) grand unification, supersymmetry, and Einstein gravity) plus additional predictions. One prediction is a dark matter particle which is consistent with current experiment and observation, which can be detected in underground and collider experiments which are currently being planned, and which may already have been detected in space-based experiments [2].

[1] Roland E. Allen, "Predictions of a fundamental statistical picture", arXiv:1101.0586 [hep-th].

[2] Reagan Thornberry, Maxwell Throm, Gabriel Frohaug, John Killough, Dylan Blend, Michael Erickson, Brian Sun, Brett Bays, and Roland E. Allen, "Experimental signatures of a new dark matter WIMP", EPL [European Physics Letters], in press, arXiv:2104.11715 [hep-ph].