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Abstract for an Invited Paper
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Discovering and Testing Dark Matter in the Lab

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I will review the different theoretical models of particle dark matter and their collider signatures. I will then derive model-independent predictions for the rate of missing energy signals due to dark matter production at colliders. I will also discuss the expected precision of measuring dark matter properties at colliders and testing the dark matter hypothesis. Finally, I will present model-independent predictions for dark matter signals in indirect detection experiments.