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# Zumalacarregui: Testing Dark Energy with Gravitational Waves

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Scalar-tensor theories of gravity can provide viable models to explain cosmic acceleration and several discrepancies of standard cosmology such as the value of H0. I will present recent progress to understand these theories and determine the properties of gravity using gravitational waves and the large scale structure of the universe: The speed of gravitational waves will provide the most stringent test for a large class of theories, while a new generation of galaxy surveys will be sensitive to new relativistic effects on the largest cosmological scales. I will also introduce hi_class (www.hiclass-code.net), an accurate, fast and flexible code to compute cosmological predictions in a very large class of gravitational theories.