▶ JUAN P. AGUILERA, *The Π^1_2-spectrum conjecture.*
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The Π^1_2-soundness ordinal of a theory T, denoted $o^1_2(T)$, is a measure of how close T is to being Π^1_2-correct. The Π^1_2-spectrum conjecture asserts that the possible values of $o^1_2(T)$ for recursively enumerable extensions of ACA_0 are precisely the Σ^1_1-definable epsilon numbers. In this talk, we present a proof of the following theorem, which is formalizable in weak set theories: If the Π^1_2-Spectrum Conjecture fails, then Second-Order Arithmetic is consistent. This is joint work with Fedor Pakhomov.