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Abstract for an Invited Paper for the TSS12 Meeting of the American Physical Society

The Pursuit of Quantum Gravity

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Why is it so difficult to make a Quantum Theory of Gravitation? What is the key idea of quantum physics? What is the key idea of Einstein theory of gravitation? I have selected three (simple) problems that can be solved and are relevant to these issues: 1. The nonanalyticity of semi classical approximations (or the sex life of the male moth) 2. The Pin Group (or the implication of the quantum phase in particle physics) 3. Spacetime is Space x Time (or the deflection of light by the Sun) Conclusion: La joie de l'ame est dans l'action Lyautey (or astronomical observations)