Quantum-mechanical time evolution of Gaussian wavepackets in an arbitrarily time-dependent, spatially quadratic potential: How Bohm makes things simple GARY BOWMAN, MICHELLE MCMILLAN, Northern Arizona University — Spatially quadratic potentials — including the harmonic oscillator — are of fundamental importance in physics. Bohmian mechanics renders straightforward the exact quantum-mechanical time evolution of Gaussian wavepackets in such potentials, even when they are arbitrarily time-dependent. I will explain how.

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