Contribution Title:	FAST AND SLOW
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In classical or quantum systems with time scales widely separated by a small slowness parameter, the fast system is driven by the slow and reacts back on it. The asymptotics of the driven fast motion has been much studied, but understanding the series of reaction forces in high orders of slowness is harder: only the lowest order (Born-Oppenheimer) and next order (geometric magnetism) have been fully explored. If the series of reactions converged, this would restrict the coupled motion to a slow manifold on which there are no fast oscillations. This hope is frustrated when, as is typical, the series diverges factorially. In a spinning-particle classical hamiltonian nonresonant model, where the asymptotics can be studied in analytical and numerical detail, the inevitability of exponentially weak fast oscillations arises from a Stokes phenomenon in the series of reaction forces.