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On Whitham dynamics and renormalization

This is a continuation and refinement of certain aspects of the author's papers hep-th 9712110 and 9802130. In pure N=2 supersymmetric Yang-Mills for example the Seiberg-Witten (SW) prepotential has a renormalization correction and this can be balanced by a contribution from the associated Whitham dynamics involving a Whitham prepotential and we provide some clarification of this. There have been a number of recent articles involving relations between Whitham theory and the renormalization group (or related matters) and we will sketch a few points in the time allowed. In particular we have a bunch of new formulas for simple examples giving an enhanced perspective at this level.