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A Travelling Wave Group and Consequences ANTONY J. BOUR-DILLON, UHRL — From the TWG for a free particle, $\psi = A(X^2/2\sigma^2 + X)$ where $X = i(kx - \omega t)$; σ is an experimental variable; and A is a normalizing constant, the following can be derived: the Uncertainty principle [1]; Planck's law; the de Broglie hypothesis; phase velocity; pseudo mass M' [2]; conservation of M'PT [3]; mass as a local excess of energy over momentum.

[1] Bourdillon, A.J., *J. Mod. Phys.* **3** 290-296 (2012), DOI 10.4236/jmp.2012.33041.
[2] Bourdillon, A.J., *J. Mod. Phys.* **4** 705-711 (2013), DOI 10.4236/jmp.2013.46097.
[3] Bourdillon, A.J., A travelling wave group III, conservation of M'PT, submitted in 2013 to *Phys. Rev. & Res. Int.*

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