

In this talk we will discuss local well-posedness for some dispersive equations in the weighted spaces $H^s(\mathbb{R}^n) \cap L^2(|x|^{2b} dx)$. As a first step, using the Stein derivative, we shall establish a weighted estimate for the linear problem. We then apply our results for several dispersive models such as the Hirota-Satsuma system, the OST equation and the Kawahara equation. This is a joint work with Alexander Muñoz.