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Markus Keel* (keel@umn.edu), University of Minnesota, School of Math, 206 Church St SE, Minneapolis, MN 55455. *Interaction Functionals in Dispersive and Hyperbolic PDE*. Preliminary report.

We will quickly and (necessarily) selectively survey the role which a long-ago-studied view on Partial Differential Equations (PDE) has played in Dispersive PDE over the past 10 years. This perspective in physical-space often presents new so-called “Interaction Functionals”. We will survey some of the origins of this approach, its discovery in the context of multi-dimensional Nonlinear Schroedinger Equations, and some applications too in the setting of Hyperbolic Systems in higher dimensions. (Received August 1, 2014)