1125-35-1754   **Gigliola Staffilani*** (`gigliola@mit.edu`). *The benefits of randomizing initial data when proving well-posedness for certain dispersive equations.*

In the last twenty years, enormous progress has been made in settling fundamental questions concerning dispersive type equations: on existence of solutions, as well as their long time behavior, singularity formation and interactions. This body of work has focused primarily on deterministic aspects of wave phenomena that have been studied with sophisticated tools from harmonic analysis, nonlinear Fourier analysis, analytic number theory and geometry. More recently, though, a growing interest has been shown by the community in incorporating a non deterministic point of view in the field of dispersive PDE. In fact, as a more detailed picture of these kinds of waves emerges, and as the questions asked become yet more challenging, it also becomes clear that even if a certain property is not true for all solutions of a certain equation, one can still prove it is generically true. In this talk I will show few examples of this recent tread. (Received September 19, 2016)