1142-76-5 **James Glimm*** (james.glimm@stonybrook.edu), 121 Thompson Street, Port Jefferson, NY 11777. *K41, K62 and all that.*

Recent progress and understanding of fractal and multifractal theories of fully developed turbulence will be discussed. Such theories yield the two point correlation function as the expectation value of correlations defined by a statistical model. Computational models of physics coupled nonlinearly to turbulent flow should be improved from such developments. (Received May 04, 2018)