DERIVED MODULI SPACES OF PSEUDO-HOLOMORPHIC CURVES

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Moduli spaces of solutions to nonlinear elliptic pdes (anti-self-dual connections, monopoles, pseudo-holomorphic curves, etc.) are a fundamental tool in low-dimensional and symplectic topology. I will discuss foundational aspects of moduli spaces of pseudo-holomorphic curves, in particular how to construct their derived structure using moduli functors, as conjectured by Joyce. Key tools include derived manifolds, log smoothness, and stacks.