



Dynamic SU(2) Structure from Seven-branes

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We obtain a family of supersymmetric solutions of type IIB supergravity with dynamic SU(2) structure, which describe the local geometry near a stack of four D7-branes and one O7-plane wrapping a rigid four-cycle. The deformation to a generalized complex geometry is interpreted as a consequence of nonperturbative effects in the seven-brane gauge theory. We formulate the problem for seven-branes wrapping the base of an appropriate del Pezzo cone, and in the near-stack limit in which the four-cycle is flat, we obtain an exact solution in closed form. Our solutions serve to characterize the local geometry of nonperturbatively-stabilized flux compactifications.

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