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NS5 Branes on the Resolved Cone over $Y^{p,q}$

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The AdS/CFT correspondence provides a powerful tool to attack very important questions of strong coupling dynamics using gravitational duals. The Klebanov-Stassler prototype has a large family of duals that contain $calN = 1$ SYM. A new and distinct family of supergravity solutions containing a sector dual to $calN = 1$ SYM might be related to the resolved cone over Einstein-Sasaki spaces. In this work we extend the construction of five brane solutions on the resolved cone over $Y^{p,q}$ spaces by expanding the generalizations of the complex deformations in the context of the warped resolved deformed conifold. This work augments recent work which established the existence of supersymmetric five branes solutions wrapped on two-cycles of the resolved cone over $Y^{p,q}$ in the probe limit. We present an ansatz and the corresponding equations of motion. Here we attempt to solve the field equations and give explicit solutions with the expected properties for theory related to strongly coupled Yang-Mills theories.

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