Geometric Engineering

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When a Type IIA string propagates on a geometry with singularity, its quantized spectrum may contain a gauge field of a non-Abelian group. The more complicated the singularity a geometry contains, the more complicated the gauge theory that can be obtained from string theory. The idea that one can design geometry to realize the gauge theory one desires is called geometric engineering. This observation has also made it possible to deal with both gravity and gauge theory (as in the real world) by simply referring to geometry.