Noether's Theorem and Gauge-Gravity Duality

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100 years ago, Emmy Noether published two theorems relating symmetries and physical quantities, which continue to be a source of inspiration for symmetry arguments in physics, and for the interpretation of symmetry in philosophy.

After reviewing some of the consequences of Noether's theorem in general relativity, in particular the existence of various energy-momentum pseudo-tensors, I will review the definition of the holographic stress-energy tensor in gauge-gravity dualities, in connection with those ambiguities.