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Supercharge cohomology in holographic theories

To leverage the full power of holographic duality, one must be able to interpolate between weak and strong coupling on the field theory side. This can be done for the superconformal index which is coupling independent but still sensitive to the distinction between multi-graviton states and black holes. I will discuss a natural refinement of this which comes from viewing supersymmetric states through the lens of cohomology. Although this space receives corrections in perturbation theory, these appear in a rather controlled way. This viewpoint makes it easier to search the low-lying Hilbert space and it also makes some relations between different theories more transparent. I will give thoughts on how supercharge cohomologies can serve as fundamental data of supersymmetric gauge theories with their own universality classes.