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Blair Davey* (bdavey@ccny.cuny.edu). *How to obtain parabolic theorems from their elliptic counterparts.*

Experts have long realized the parallels between elliptic and parabolic theory of partial differential equations. It is well-known that elliptic theory may be considered a static, or steady-state, version of parabolic theory. And in particular, if a parabolic estimate holds, then by eliminating the time parameter, one immediately arrives at the underlying elliptic statement. Producing a parabolic statement from an elliptic statement is not as straightforward. In this talk, we demonstrate a method for producing parabolic theorems from their elliptic analogues. Specifically, we show that an L^2 Carleman estimate for the heat operator may be obtained by taking a high-dimensional limit of L^2 Carleman estimates for the Laplacian. Other applications of this technique will be discussed. (Received January 16, 2019)