# Variational counterpart of the Germano identity

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Using the weak form of the incompressible Navier stokes equation, a consistency condition for an "ideal" large eddy simulation model is derived. This is the variational counterpart of the so-called Germano identity, which is typically derived using the filtered Navier-Stokes equations equation. The performance of the variational Germano identity is assessed via studies based on analytical estimates, and a-priori and a-posteriori analysis.