

Title: A generalized notion of compliance

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Abstract: It is a known fact in structural optimization that for structures subject to prescribed non-zero displacements the work done by the loads is not a good measure of compliance, neither is the stored elastic energy. We briefly discuss a possible alternative measure of compliance, valid for general boundary conditions. We also present the adjoint states (necessary for the computation of the structural derivative) for the three functionals under consideration. (C) 2011 Academie des sciences. Published by Elsevier Masson SAS. All rights reserved.

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