



HYPERSTRESSES, RELATIVE POWER AND INVARIANCE IN SECOND-GRADE CLASSICAL FIELD THEORIES

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Abstract. We revisit second-grade (second-gradient) Lagrangian classical field theories, discussing reasons that justify restrictions on the choices of changes in observers on the material manifold. Then, we focus the attention of the possibility of dissipation due to the evolution of bulk defects; we extend to this setting the notion of relative power including hyperstresses and derive pertinent balance equations by exploiting an invariance axiom.

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