

Erratum to: Modeling a smooth elastic–inelastic transition with a strongly objective numerical integrator needing no iteration

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At the time of publication of this paper, the authors were unaware of the small deformation models in [1,2] and the large deformation model in [3]. Lubliner et al. [2] generalized previous work by the first author and developed a rate-independent overstress model with a smooth elastic–inelastic transition for which the inelastic deformation rate depends linearly on the stress rate. Their model included both kinematic and isotropic hardening and the comparison with the present model can only be made for the isotropic hardening case. The model in [2] was generalized for large deformations in [3] but the function h used in this generalization limited attention to sharp elastic–inelastic transitions. Einav [1] generalized previous hypo-plastic and hyper-plastic models which produce rate-independent smooth stress–strain curves with no elastic range and for which the inelastic deformation rate depends linearly on the total strain rate. The model in this paper can be considered as a unifying generalization to large deformations of the models in [1–3] and a viscoplastic overstress model [4] since it models both rate-independent and

rate-dependent materials exhibiting: smooth elastic–inelastic transitions with finite elastic ranges and smooth stress–strain curves with no finite elastic ranges.

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