Call for papers

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Identification of Anisotropic Constitutive Models for Complex Loading Paths

Manufacturing complex shaped sheet metals requires an understanding of multiaxial behavior under various processing conditions. The anisotropic material behavior is known to highly depend on strain path. Therefore, for an accurate description of material responses to the wide variety of loading conditions, experimental and computational approaches have been developed with advances in constitutive modeling. This special topic focuses on identification of constitutive model parameters of anisotropic materials under complex deformation paths. The topics include, but are not limited to, multiaxial testing and simulations, direct or inverse methods including full-field measurement, artificial intelligence for identifying anisotropic, and path-dependent constitutive models.

Original research papers should be 3,000-9,000 words with up to 12 figures maximum; review papers should be 6,000-11,000 words with up to 20 figures maximum.

Detailed author instructions are available at: http://www.tms.org/AuthorTools/

Keywords for this topic: Advanced Processing; Mechanical Properties; Modeling and Simulation; Shaping and Forming; Constitutive Modeling

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Committee Sponsor(s): Shaping and Forming

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