



Note: The deadline for submission to the Special Issue on Forming and Joining of Lightweight and Multi-material Systems has been extended to December 22.

[Submit your paper here](#)

Special Issue on: **Forming and Joining of Lightweight and Multi-material Systems**

With this special issue of the Journal of Manufacturing Science and Engineering (JMSE) our objective is to collect papers which enhance the understanding of material deformation processes; expand the lightweight material forming and multi-material joining processes and modeling capability; and promote R&D activities on forming and joining new materials and/or new forming and joining technologies at length scales varying from micro- to macro-scale.

Specifically, the special issue will address recent advances in lightweight material forming processes (cold, warm & hot) such as deep drawing, hydroforming, stretch forming, extrusion, rolling, forging, explosive forming, superplastic forming, laser forming, and novel forming processes for materials. Emphasis is also placed on joining processes for multi-material systems, such as aluminum to high strength steel; aluminum to high strength aluminum; magnesium to steel, and aluminum to composites.

Papers should be submitted electronically to the Journal at <http://journaltool.asme.org>.

Papers are invited dealing with theoretical and experimental advances in this promising area, particularly addressing the current challenges. Emerging issues in service-oriented architecture, cloud platforms, collaborative web services, industrial applications and state-of-the-art literature survey are encouraged. Topics of interest include, but are not limited to:

- Computational methods in modeling and designing of forming and joining processes
- New/emerging forming and joining technologies
- Microforming and microjoining
- Special issues in forming of lightweight materials (Titanium, Magnesium, Aluminum, Advanced High Strength Steel)
- Fracture and Failure
- Anisotropic yield functions and constitutive modeling
- Microstructure evolution and characterization in forming and joining processes
- Tribology
- Joining of dissimilar materials
- Forming and joining of composites

Manuscripts are due **December 22, 2014** and publication of the special issue is scheduled for **October 2015**.

Submission Guidelines:

Papers should be submitted electronically to the Journal at <http://journaltool.asme.org>. If you already have an account, login as author and select Submit Paper at the bottom of the page. If you do not have an account, select Submissions and follow the steps. In either case, at the Paper Submittal page, select the Journal of Manufacturing Science and Engineering and then select the special issue *Forming and Joining of Lightweight and Multi-material Systems*.

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SETTING THE STANDARD FOR ENGINEERING KNOWLEDGE