VII ECCOMAS Young Investigators Conference
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Shape Memory Alloy Phenomena - Experimental and Model Based Investigations

Scientific area: Computational Solids And Structural Mechanics

This minisymposium addresses recent advances in the experimental investigation and modeling of shape memory alloys (SMAs). In engineering, they are of particular interest, e.g., because of their thermomechanic behaviour that allows shape recovery or the effect of pseudoplasticity, that is commonly used to dissipate energy. The underlying processes are phase transitions which are the superordinate topic of this MS. Focus are transitions between the martensitic and austenitic phase, as well as detwinning processes or other transitions that are of relevance for a given SMA material system. Modeling approaches of the phenomenological type, based on microstructure evolution or atomistic scale processes are of interest. This also applies to experimental works on the mechanical behaviour or given technical processes, as well as numerical studies that focus on SMA material behaviour.

Organizers:

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