Preface to the special Issue on the 11th International Conference on Mechanics of Time-Dependent Materials

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The 11th International Conference on Mechanics of Time-Dependent Materials was held at Politecnico di Milano in Milan, Italy, from September 4th to September 7th, 2018. The purpose of the Conference was to foster the exchange of knowledge between researchers approaching the topic of time-dependent behavior of materials from different viewpoints to generate solutions for open issues and new ideas. The Conference hosted 63 delegates from 16 countries, who contributed with 53 oral presentations that addressed research issues of current interest. The study of the viscoelastic behavior was addressed dealing with multi-phase and fiber reinforced materials, often including material failure behavior and/or environment effects. Also surfaces and interfaces were taken into consideration. The characterization and modeling of the mechanical behavior of polymers and elastomers in the range of large deformations have been other research topics that, garnering a significant number of contributions, led to animated and interesting discussion. Furthermore, presentations on engineering applications have intrigued the audience. Most of the talks dealt with polymer-based materials, but some speeches focused on natural materials, metals and ceramics, always in the framework of disciplines such as Mechanical Engineering, Bioengineering, Aerospace Engineering, Materials Engineering and Science.

This Special Issue, including a selection of papers presented in the Conference, is aimed at further contributing to the understanding of the time-dependent mechanical response of engineering materials. The topics tackled in this special issue are related to polymer-based materials and deal with the characterization and modeling of the viscoelastic behaviour of polymeric materials, the characterization of polymeric material durability in an active environment and the characterization of the thermal and mechanical behavior of innovative composite materials. The Collection is aimed to foster the development of the research on

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these topics that still stimulate the scientific community in worthwhile discussions and that will keep alive the participation to the next MTDM Conference.

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Guest Editors

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