

Foreword

DYMAT is the European Association for the Promotion of Research into the Dynamic Behaviour of Materials and Applications. As such, the main purpose of this learned society is the organization of international conferences, technical meetings, and other kinds of scientific and technical events.

In 2019, DYMAT organized its 24th Technical Meeting on “Temperature dependence of material behaviour at high strain rates”, 9-11 September, Stresa, Italy. A selection of 13 papers were published in the Journal of Dynamic Behavior of Materials. In 2020, DYMAT launched its very first winter school event, organized at Ecole de Physique des Houches, France. Reimagined with a new format and concept, this workshop was intended to replace previous “student camps”. Not solely oriented towards the youngest members of our scientific community, this event generated a great amount of interest, mainly by mixing researchers of all levels of experience. Expert keynote lectures and appealing attendance fees were the other ingredients of the success of the new formula. At the same time, DYMAT was preparing its 25th Technical Meeting on “Microstructure-dynamic properties relations in metals” planned for 9-11 September 2020, Ghent, Belgium. Unfortunately, this event had to be cancelled due to the COVID-19 pandemic.

The DYMAT International Conference is the irreplaceable triennial rendezvous of scientists and engineers keen to share their most recent achievements on the dynamic behaviour of materials. The 13th DYMAT International Conference, scheduled for September 20th-24th September 2021, has been organized by the Universidad Politécnic de Madrid, Madrid, Spain. Special emphasis was given to six key topics: Experimental Techniques, Microstructural Effects, Modelling and Numerical Simulation, Industrial Applications, Behaviour of Metallic Materials, Behaviour of Non-Metallic Materials. Contributions prepared for the 25th Technical Meeting have also been re-scheduled into this event. Finally, considering the current conditions created by the pandemic, the conference will also be accessible online.

DYMAT 2021 also has the honour to give the John S. Rinehart Award, a distinction recognizing outstanding effort and creative work in the science and technology of dynamic processes in materials. This year, considering his exceptional career and remarkable scientific contributions, the jury decided to award this distinction to Professor K.T. Ramesh from Johns Hopkins University, USA. We are delighted to congratulate him on this much-deserved award.

In 2018, DYMAT revived the PhD prize recognizing the excellence of a recent PhD in the dynamic behaviour of materials and its applications. The contest was held again in 2021 with great success. The number of candidates increased to seventeen. Their respective merits were examined in depth by a board of examiners composed of the members of DYMAT’s International Advisory Committee as well as the members of DYMAT’s Governing Board. The rules of the contest have evolved to assess not only the scientific value of the work, but also the communication skills of the applicant. We are proud to congratulate Dr Maria Lißner for her remarkable success in this competition, and are happy to thank each candidate as well as all of those who actively encouraged the 8 finalists on YouTube.

Like all of you, DYMAT has been facing unusual and extremely challenging conditions for fulfilling its missions during the last 18 months. The intrinsic European nature of the association has been an additional difficulty in making the Bureau and the whole Governing Board work efficiently, while taking important decisions in a rapidly changing environment. These harsh conditions have also been an opportunity for profoundly transforming our working methods, and dramatically accelerating our decision-making processes. In a very short period of time, we changed the membership application process, developed, tested and validated a secure electronic voting protocol, offered several free and open-to-all webinars, transformed the PhD prize selection process, and started DYMAT's YouTube channel. Numerous new projects have also been blooming, and we are impatient to present them to you. I take the opportunity to warmly thank each member of DYMAT's Governing Board for having fully played their part, despite the physical distance and the lack of in-person contact. My deep gratitude goes also to Professors D. Rittel, G. Ravichandran and K.T. Ramesh for kindly agreeing to participate in our innovative webinar experiences, thereby gathering our community together for some intense moments of scientific discussions that we are missing so much.

I could not conclude this foreword without thanking Professor Francisco Galvez, who deserves my deepest respect for having prepared methodically and courageously the DYMAT 2021 International Conference, despite all past and remaining uncertainties affecting the organization. His steady work has built an event that will certainly remain a symbol of resilience.

Le Barp, France, the 3rd of August 2021
Eric BUZAUD
President of the DYMAT Association