Editorial

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The January 2022 issue of *Structures and Buildings* comprises of five papers, starting with two on seismic engineering. The first, by Georgoussis and Mamou (2022), builds on a previous study to show that the effects of vertical variations in eccentric masses on the post-elastic phase torsional responses of asymmetric multi-storey buildings are not too dissimilar from the elastic phase effects, provided two key conditions are met. Next, Salimbahrami and Gholhaki (2022) observe from a parametric numerical study that it is prudent to apply base shear effects from far-field earthquakes for low- and medium-rise structures, while for high-rise buildings the near-field earthquake base shear effects dominate.

In the third paper, Kotsovos (2022) proposes that unexpected types of brittle failures in reinforced concrete structures can often be due to key disparities between the actual behaviour of concrete and that assumed in analyses of such structures. For example, it is posited that only the compression concrete zone under triaxial stresses, and not aggregate interlock or dowel action, can resist shear. Suggestions are made for improving reinforced concrete design approaches.

Next, Zhang *et al.*, (2022) present finite element simulations of reinforced concrete nuclear containment vessels. The results show that for uniaxial loads defined by change in load direction and for biaxial loads in which the load ratio is varied, the reinforcement configuration strongly influences bearing capacity. Recommendations are given for reinforcement ratios in specific directions for cylinder and dome vessels.

In the concluding paper of this issue, Chen *et al.*, (2022) present a taxonomy of curved plates based on their (stress, solidification or composite) forming methods. Engineering

applications of such plates are discussed, and the important role of modern software including BIM and finite element analysis to ensure robust implementation and structural performance of curved plate technology is highlighted. It is concluded that future research should focus on novel combinations of traditional and evolving technologies to drive developments in curved plate production.

We welcome your discussion on any of these papers. In addition, please continue to join us throughout 2022 as we journey through more cutting-edge applied structures research. Our best wishes to you our authors, reviewers and readers for a healthy and fruitful year

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