## A short report of ConCreep12

The $12^{\text {th }}$ edition of the conference ConCreep (a series which started in 1958) took place from Wednesday $5^{\text {th }}$ to Friday $7^{\text {th }}$ June 2024 at Delft University of Technology, The Netherlands.


Delegates of the $12^{\text {th }}$ edition of ConCreep. Image courtesy of Shan He.


Program of ConCreep12.
The organisers scheduled only one key-note lecture, given during the first day, by Prof. Zdeněk Pavel Bažant, Northwestern University, USA, presenting "Why is hydration of cement as a porous solid always expansive? Consequences for drying and autogenous shrinkage, drying creep and swelling in water".


Prof. Bazant's plenary lecture at ConCreep 12. Image courtesy of G. Cusatis.
The rest of the plenary sessions were organised as debates between two renowned scientists, most of them RILEM active members... in a boxing-ring. The organisers ensure that no blood was spread! Following, some images of the debate sessions.


Debate 1: Similarities and differences between cement-based concretes and other binders.
Boxers: Geert de Schutter vs. Ye Guang. Moderator: Erik Schlangen (on the far left). Image courtesy of Shan He.


Debate 2: Early age properties in 3D-printing and regular concrete production. Boxers: Yamei Zhang vs. Pietro Lura. Moderator: Branko Šavija. Image courtesy of Shan He.


Debate 3: Creep, Shrinkage and Durability, the path from research to codes in the US and EU. Boxers: Matthew D’Ambrosia vs. Agnieszka Bigaj. Moderator Mladena Lukovic (on the far left). Image courtesy of Shan He.


Debate 4: Micro-scale versus Macro-scale approach; what shall we do? Boxers: Ya Wei vs. Stéphanie Staquet. Moderator: Bernhard Pichler (in the centre). Image courtesy of Shan He.


Debate 5: Conceptual, Numerical or Machine Learning Models; what gives us better and safer structures? Boxers: Klaas van Breugel vs. Benoît Hilloulin. Moderator: Gianluca Cusatis (in the centre). Image courtesy of Shan He.

