Celebrating the 95th birthday of Professor Karl S. Pister

Part 2 - Technical papers

There are fourteen technical papers, covering a wide range of topics, such as:

- The *Lu-Pister* multiplicative decomposition in thermoelasticity and the *Simo-Pister* material laws (Professor Hans Irschik, Professor Alex Humer)
- Meshless matrix-free turbulent flow modeling (Professor Andrew Meade)
- Machine-learning model-order reduction finite-element methods (Professor Wing-Kam Liu)
- Biological cell fluid mechanics, pressure balance and volume stabilization (Professor Peter Pinsky), modeling actin filaments (Professor Panos Papadopoulos)
- Effective elastic moduli in composite materials (Professor Woody Ju)
- Dental reconstruction modeling (Professor Karl Schweizerhof)
- High-fidelity finite-element technology (Professor Carlos Felippa)
- Damper design in earthquake-resistant buildings (Professor Izuru Takewaki)
- Virtual element method in elastodynamics (Professor Peter Wriggers)
- Nearly-incompressible elasticity, matrix-free finite-element method (Professor Stein Sture, Professor Richard Regueiro), isogeometric analysis (Professor Thomas J.R. Hughes)
- Crystal plasticity (Professor Shaofan Li)
- Electrothermal simulation in power electronics (Professor Loc Vu-Quoc).

These papers are arranged below in the order of their submittal dates, except for the papers by the two Karl Pister special issue editors, who were the first to submit their papers, which appear last in the list of papers, the topics of which are essentially listed above in reverse order to highlight the *Lu-Pister* multiplicative decomposition and the *Simo-Pister* material laws, again except for the topics of the two editors' papers.

Among the contributors (not counting the Karl Pister Special Issue editors) were four Editors-in-Chief and one Editor of major computational mechanics journals, listed in order of paper submission to this special issue:

- *Computer Methods in Applied Mechanics and Engineering* (Internet archived on 2021.07.18) : Professor Tom Hughes
- *Computational Mechanics* (Internet archived on 2021.09.18) : Professor Peter Wriggers and Professor Wing-Kam Liu
- *International Journal of Damage Mechanics* (Internet archived on 2021.09.20): Professor Woody Ju
- *Acta Mechanica* (Internet archived on 2021.09.20) : Professor Hans Irschik