



**EDITORIAL**

## Celebrating the 95th birthday of Professor Karl S. Pister

### A memory lane

Former students, friends, and colleagues at the beginning, or at the height, of their interaction with Professor Pister

Received: 24 September 2021 Accepted: 27 September 2021

#### Professor Thomas J.R. Hughes

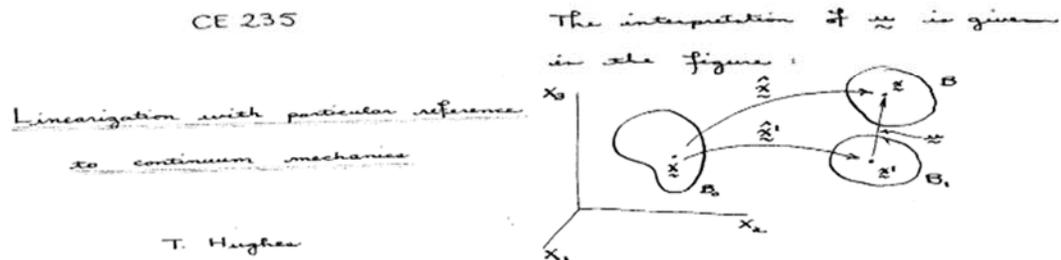


Professor Hughes in 1978 at the conference FENOMECH '78 (Finite Elements in Nonlinear Mechanics), where he presented an invited plenary lecture co-authored with Professors Karl Pister and Robert Taylor, and published his lecture in the [Computer Methods in Applied Mechanics and Engineering \(CMAME\)](#) ([Internet archived on 2021.07.18](#)), whose Editor-in-Chief was the late Professor John Argyris, who then invited Prof. Hughes to become a Co-Editor-in-Chief from the second issue of the CMAME in 1980 until today (2021, 41 years).

In this special issue:

- Tribute to Prof. Pister
- Technical article

- First UC Computational Mechanics Course (Spring 1975)  
(Taught by: K.S. Pister & T.J.R. Hughes)



Prof. Pister and Prof. Hughes co-taught the first course CE 235 Computational Mechanics at Berkeley in 1975. Above are the handwritten lecture notes by Prof. Hughes. “This course established much of the notation and methods we use today”, Prof. Robert (Bob) Taylor, “[My fifty years with finite elements](#)”, Venice, Italy, Jun 2008 ([Internet archived 2021.06.07](#)).

**Editor’s note:** See section Supplements in Part 3 for an explanation on Tom’s photo, lecture notes and how Bob’s talk slides were found. LVQ



### University-of-the-Pacific President Pamela Eibeck

Dr. Pam Eibeck, when she was an assistant professor, at the [Faculty Glade](#) on the beautiful UC Berkeley campus on the occasion of her receiving the Prytanean Award (Special Commendation) in 1990.

In this special issue:

- Tribute to Prof. Pister

**Editor's note:** See the Inauguration Ceremony of UoP President Eibeck in the Supplements section of Part 3. LVQ



### University-of-Maryland President Darryll Pines



University-of-Maryland (UMD) President Darryll Pines attended the University of California at Berkeley as an undergraduate in the 1980s when Professor Karl Pister was the dean of the college of engineering.

Before being UMD president, Professor Pines was the chair of the Aerospace Engineering department, then dean of the college of engineering, at the University of Maryland.

In this special issue:

- Tribute to Prof. Pister

### Professor Alice Agogino

Professor Alice Agogino (with daughter) at an event of the college of engineering on the Berkeley campus in 1994.

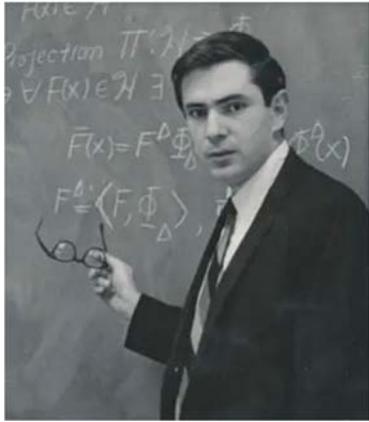
Photo credit: Peg Skorpinski.

In this special issue:

- Tribute to Prof. Pister



**Professor J. Tinsley Oden**



Professor J. Tinsley Oden giving a lecture on some mathematical aspects of the finite-element method at The University of Texas at Austin, circa 1972.

In this special issue:

- Tribute to Prof. Pister

**Ms Billie Greene**



Ms. Billie Greene and daughter Elizabeth at Professor Pister’s dean retirement party in 1990.

In this special issue: • Tribute to Prof. Pister

### Professor Stein Sture



Professor Stein Sture, circa 1990, when he received the ASCE Walter Huber Prize for research excellence; the photo was taken by an ASCE photographer. Prof. Sture continued to maintain close contact with Prof. Pister since the 1981 photo below.

In this special issue:

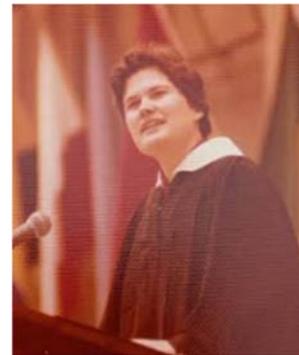
- Tribute to Prof. Pister
- Technical article

### Professor Constance Lütolf-Carroll

Professor Constance Lütolf-Carroll was honored to be selected by a student graduation committee to give a speech to the undergraduate class of 1977 at [The Greek Theater](#) on the Berkeley campus, with the presence of Professor Karl Pister, who taught the Winter 1976 course *CE 130 Mechanics of Materials*, in which Connie was a student.

In this special issue:

- Tribute to Prof. Pister



### Cooper-Union Vice President Antoinette (Toni) Torres

Ms. Antoinette Torres at a conference of the National Society of Black Engineers (NSBE) in San Francisco around 1993.

In this special issue:

- Tribute to Prof. Pister



**Professor Ekkehard Ramm**



Dr. Ramm, visiting scholar at UC Berkeley, on an excursion to the Bay Area and San Francisco in June 1973. In this special issue: • Tribute to Prof. Pister

**Mr. Brant Smith**



Mr. Brant Smith (left in this 1992 photo) was the Student Union Assembly Chair (a position analogous to Student Body President) at the University of California at Santa Cruz in the early 1990s, when Professor Pister (right) was Chancellor. Today he works as a Software Engineering Program Manager at Apple Inc.

In this special issue:

- Tribute to Prof. Pister

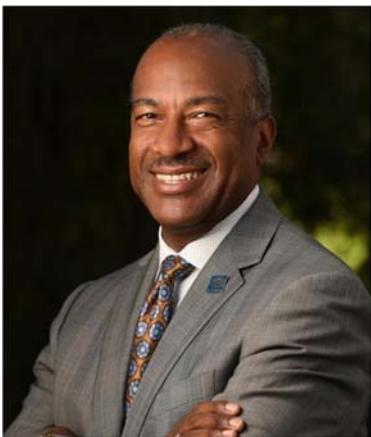
### Dr. Paula Hawthorn and Dr. Barbara Simons



Dr. Barbara Simons (standing) and Dr. Paula Hawthorn and the CDC 6400 computer in the basement of Evans Hall, home of the Computer Science Department at Berkeley, in preparation for the 1977 Conference on Women in Computing.

In this special issue: • Tribute to Prof. Pister

### University-of-California-at-Davis Chancellor Gary S. May



At Berkeley, Dr. Gary May received his Masters of Science degree in 1987 and his Ph.D. in 1991, both in Electrical Engineering and Computer Science (EECS), when Professor Karl Pister was the dean of engineering. Photo courtesy of UC Davis.

In this special issue:

• Tribute to Prof. Pister

**Editor's note:** Dr. May, together with Dr. Sheila Humphey, received a national award for excellence in mentorship from former President Obama; see Supplements section. See also the tribute of Professor Agogino.

### Professor Carlos Felippa



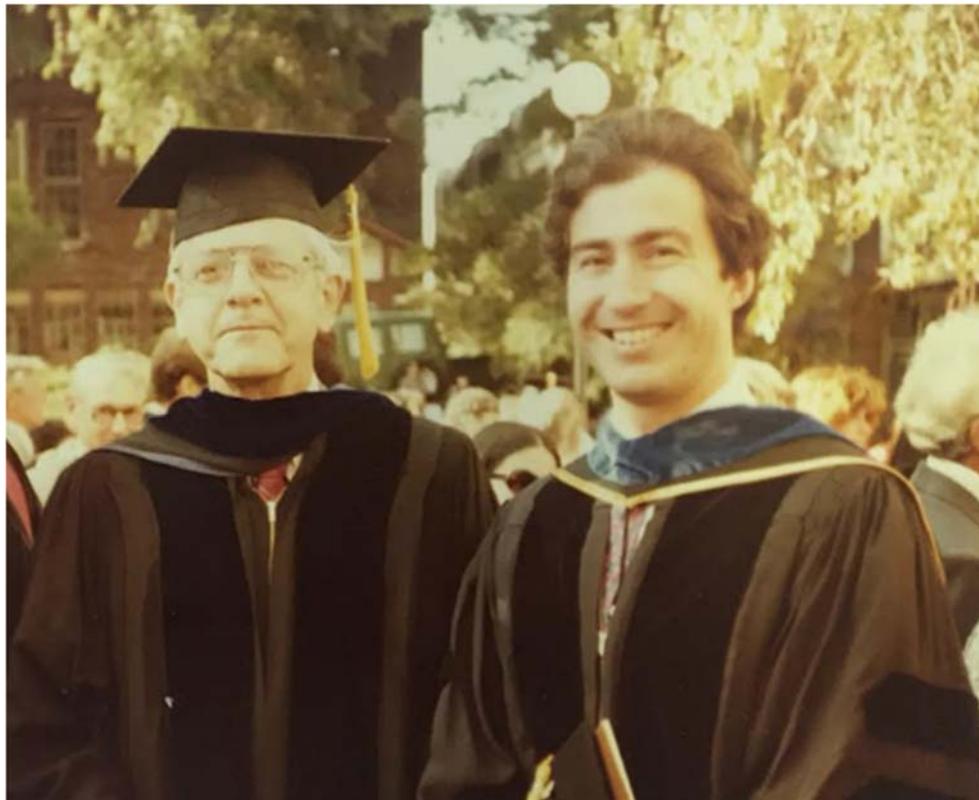
Professor Carlos Felippa was learning to ski at age 28. The photo was taken Dec 1968 at the Cascades slopes west of Seattle, Washington. Carlos was then working at The Boeing Company Commercial Airplane Division, Renton, WA, after a postdoc year at UC Berkeley.

In this special issue: • Tribute to Prof. Pister and article

CE 230A Notes  
 FALL 1963  
 Instructor: Karl Pister  
 Berkeley Civil Eng / SESM Div.

[Carlos Felippa CE230A Fall 1963 Class Notes.pdf](#) - course taught by Prof. Pister, started before the assassination of President John F. Kennedy in Nov 1963. Prof. Felippa said “The Notes look nice because I redid the shorthand in the evenings, as a way to understand and absorb the material, which was tough in my first year at UCB. Also to learn English grammar.”

**Editor’s note:** In the above class notes, p.29, the section on constitutive equations started on Oct 18, 1963, as mentioned in Prof. Felippa’s tribute. LVQ

**Professor Peter Pinsky**

Professor Karl Pister and Professor Peter Pinsky just after the graduation ceremony in June 1981.  
In this special issue: • Tribute to Prof. Pister and article

**Dr. Sheila Humphreys**

At a graduation ceremony in 1987 at UC Berkeley.

In this special issue:

- Tribute to Prof. Pister

Photo credit: Peg Skorpinski



### A wine tasting event in 1981



A wine-tasting gathering event in connection with a joint computational mechanics/solid mechanics conference held at the University of Arizona, Tucson in 1981. Prof. Karl Pister (third from left), Prof. Stein Sture (fourth from left), Prof. Robert Taylor (fifth from left, in the back), Prof. Peter Pinsky (sixth from left, picking up his wine glass from the table).

### Professor Richard Regueiro



Professor Regueiro received his PhD in Civil and Environmental Engineering at Stanford University in 1998 (advisor: Professor Ronnie Borja), where he took courses from Professors Steele, Hughes, Simo, and Borja, among other mechanics professors at Stanford at the time with ties to Professor Pister. He then became a technical staff member at Sandia National Laboratories, California, from 1998 to 2005. In 2005, he began his academic career in the Department of Civil, Environmental, and Architectural Engineering at the University of Colorado Boulder, where he is currently full professor and colleague of Emeritus Professor Stein Sture.

In this special issue:

- Technical article (co-author of Prof. Sture)

**Professor Peter Wriggers**

During Prof. Wriggers (right in photo) first visit to Berkeley (1983-84), he met with Prof. Pister and Prof. Robert (Bob) Taylor, sometimes at a coffee shop, sometimes in Bob's office, and talked about FEM and university politics.

The above photo was taken in a large "infamous room" 508 with no windows, where graduate students and visiting scholars worked in cubicles, such as the one above. Peter shared the cubicle with the dean of the University of Beirut, Lebanon (middle in photo) and Prof. Dietrich Hartmann of Bochum University, Germany (left in photo). Everyone bundled up with a sweater or a jacket because of the cold air conditioning inside, even though it was warm outside.

Peter returned to Berkeley in 1988, and met Karl in Bob's office, which he used when teaching an advanced FEM course.

In this special issue: • Technical article

**Editor's note:** Prof. Wriggers has been the Editor-in-Chief of the [Computational Mechanics](#) ([Internet archived on 2021.09.18](#)) since 2001 (20 years as of 2021). Room 508 in the photo above was in [Davis Hall](#). LVQ

### Professor Panos Papadopoulos



Professor Papadopoulos in his office in 1989.

In this special issue:

- Technical article

### Professor Izuru Takewaki



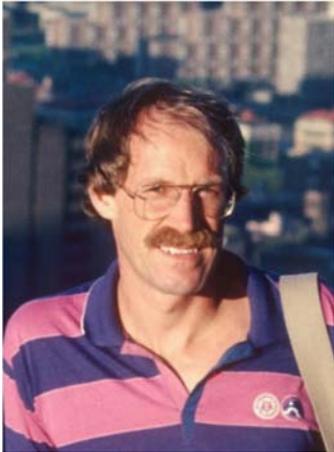
Professor Takewaki met with Professor Pister his then PhD student Joel Conte (now professor at UC San Diego) in 1990, on his first visit to Berkeley for 12 months, to discuss the application of an Auto-Regressive Moving-Average method for earthquake ground motion generation for seismic design of building structures.

Izuru again visited Berkeley for a few days in September, 2017, when he also met with Prof. Pister before giving a seminar to Berkeley CEE graduate students.

In this special issue: - Technical article

**Editor's note:** In the Supplements section, there is a photo of Prof. Pister and Izuru in 2017. LVQ

### Professor Karl Schweizerhof



“I was visiting UC Berkeley with my wife Helga as a guest and PostDoc of the department of civil and environmental engineering from September 1982 until July 1984. It was a personally wonderful and scientifically very inspiring time particularly due to my hosts Professor Jerome L. Sackman and Professor Robert L. Taylor. Prof. Karl Pister was dean of the college by then providing a great scientific atmosphere as well as a scientist in the field of mechanics and a head of the school. For my own scientific career and professorship at the University of Karlsruhe (nowadays Karlsruhe Institute of Technology) this time was of utmost importance.”

In this special issue:

- Technical article

### Professor Jiann-Wen (Woody) Ju



Professor Ju received his MS degree from Dean Pister in June 1983 at the Commencement of the College of Engineering at Greek Theater of UC Berkeley. After passing the Ph.D. preliminary exam in early 1984, Woody requested a personal meeting with Prof. Pister and left a meeting note with Prof. Pister’s secretary. Woody soon started to pursue his doctoral dissertation under the joint supervision of Prof. Karl Pister and Prof. Robert Taylor from Spring 1984 to Fall 1986. Many years later, Prof. Pister miraculously discovered the hand-written meeting note by Woody on his desk, and mailed the note to Woody at Princeton University. That written note was the beautiful beginning of a lifetime relationship with Prof. Pister and the grand beginning of the academic career of Prof. Ju.

In this special issue: • Technical article

**Editor’s note:** Prof. Woody Ju has been the Editor-in-Chief of the [International Journal of Damage Mechanics](#) ([Internet archived on 2021.09.20](#)) since 2015. LVQ

**Professor Wing-Kam Liu**



Professor Liu at the World Congress on Computational Mechanics in 2002 in Beijing, China.

In this special issue:

- Technical article

**Editor's note:** Prof. Liu has been an [Editor of the \*Computational Mechanics\*](#) ([Internet archived on 2021.09.18](#)) since 2006. LVQ

**Professor Andrew Meade**



Professor Meade with his mother at his graduation day in 1989, with Dean Karl Pister attending.

In this special issue: • Reflection in Dr. Humphreys' tribute • Technical article

### Professor Hans Irschik



“As a student of academic teachers like Heinz Parkus and Franz Ziegler, I made my first scientific experiences in thermal stresses, a field to which I returned since then often. (Inset photo circa 2011.)

Recently, I discussed with Professor Alex Humer on a possible consistent extension of geometrically exact isothermal beam theory to thermoelasticity. We came to the conclusion that the highly valuable representation of the free energy function for isotropic thermoelastic solids was suggested by Lu and Pister, which I did remember from older days, would be an ideal starting point for such a study.

I am deeply grateful that the Special Issue organized by Professor Loc Vu-Quoc and Professor Shaofan Li gave us the opportunity to gain a deeper understanding of this and other important works by Professor Karl S. Pister, to whom we dedicate our paper on the occasion of his 95th birthday in highest appreciation and with our cordial wishes.”

In this special issue: • Technical article.

**Editor’s note:** Professor Irschik has been the Editor-In-Chief of the [Acta Mechanica](#) ([Internet archived on 2021.09.20](#)) since 2006. LVQ

### Professor Shaofan Li



Professor Shaofan Li has been a junior colleague of Professor Karl S. Pister for more than twenty years.

In this special issue:

- Technical article

**Editor’s note:** Professor Li became an editor of the [Acta Mechanica](#) as of 2021.09.23. LVQ

### Professor Alexander Humer



In retrospect, the first occasion on which I came across the name of Karl Pister most probably dates back to 2007. In the second half of 2007, I began working on my diploma thesis on the continuum modeling of volumetric growth, for which the review article by Lubarda [1] on multiplicative decompositions in the constitutive modeling of inelastic processes was an important source of information. In the section on thermoelasticity, the review article mentions the paper of Lu and Pister [2], which provides the continuum mechanics foundation of our contribution to this special issue.

Four or five years later, when I was PhD student, I was contacted by one of the reviewers of my article on sliding beam, who approached me asking whether I was interested in a collaboration. This reviewer, who fortunately only requested minor revisions only, turned out as Professor Loc Vu-Quoc, who together with the editor of CMES, Professor Shaofan Li, co-authored the seminal article on the dynamics of sliding beams [33] I was referring to in my paper.

Ever since, I've been lucky to be in regular exchange with Loc. Our weekly meetings became a fixed point in my calendar and our discussions soon extended beyond scientific topics: from linguistics to pianos to politics, to mention only some, Loc and I spent many evenings (me) / mornings (him) on Skype talking about 'life, the universe and everything'. Loc also allowed me more than a glimpse into private life, which was how I learned that he named his son Karl after his academic teacher. A photo with Loc's family was when I first 'saw' Karl Pister.

I remember that, not too long ago, Karl Pister was indirectly involved in Loc's and my discussion, in which we talked about the origins of Austrian church tax, after Loc brought up Pope Francis' moving article "[A Crisis Reveals What Is in Our Hearts](#)" in the *New York Times* on the American Thanksgiving Day, 26 Nov 2020 ([Internet archived on 2021.06.25](#)). Loc said he often went to a cathedral in Paris on Sundays with a Catholic friend to listen to organ music. The Austrian church tax came up when Loc asked whether young Austrians went to church. Karl Pister knew very well about the German church tax ("[Kirchensteuer](#)"), and wanted to learn more about the history of the Austrian church tax (contribution, "[Kirchenbeitrag](#)").

Also not too long ago, my teacher, Hans Irschik, in the meantime Professor emeritus, approached me whether I could help him get some article on thermoelasticity, i.e., the paper of Lu and Pister [2], and whether I was interested to work with him on the topic. I gladly agreed to join in given the (social) distance COVID-19 has brought along.

This is how the circle eventually closes: Telling Loc about our work, we were invited to contribute to this special issue.

In this special issue:

- Technical article

**Professors Mark Austin and Loc Vu-Quoc**

Attending the wedding of a friend at Berkeley in 1986.

In this special issue: • Biography of Prof. Pister and technical article

**Editor's note:** See also the Supplements section and the Biographical Timeline section. LVQ