

University of Colorado at Boulder

Commencement

Norlin Quadrangle

August 12, 2000

One Hundred Twenty-Fourth Year
of the University



Honorary Degree

The University of Colorado Board of Regents is pleased to present the following honorary degree at the August 12, 2000, commencement ceremony.

Zdeněk P. Bažant

Dr. Zdeněk P. Bažant is a fifth-generation engineer and professor who is internationally known for his size effect law for the failure of structures consisting of brittle materials like concrete, composites, or geomaterials (concrete, rock, and soil). Over the past 30 years, he has become a world-renowned scientist in the field of structural engineering and solid mechanics and a distinguished professor who has made significant and numerous contributions to engineering literature.

Born in Prague, Dr. Bažant received the degree of civil engineer from Czech Technical University in Prague in 1960. Later that year he entered the engineering field, supervising the construction of a large arch bridge, and then working as a design engineer. While working full time, he found time to further his graduate education, and in 1963 received a doctorate in engineering mechanics from the Czechoslovak Academy of Sciences. He completed additional post-graduate work in theoretical physics at Charles University in Prague in 1966 and attained docent habilitation at Czech Technical University in 1967.

In 1966 Dr. Bažant left Prague and moved first to Paris, then to Toronto, and in 1969 to the University of California at Berkeley. Later that year he joined Northwestern University, where he has spent the last 30 years. During 1981–87 he served as director of the university's Center for Concrete and Geomaterials, and since 1990 he has held the prestigious W. P. Murphy Professorship of Civil Engineering and Materials Science.

He has made major contributions to fracture mechanics, particularly the scaling laws for the strength of structures, understanding the stability of structures, modeling damage in brittle materials like concrete, and predictions of creep and temperature effects on concrete structures. His contributions are significant for the design and safety of massive structures made of concrete or composites, including nuclear reactor containments and vessels, the durability of structures, the impact of hardened concrete structures, and arctic engineering.

Dr. Bažant is a member of the National Academy of Engineering and the science academies of Austria and the Czech Republic. He has the second highest citation record in structural mechanics and engineering and has authored more than 400 refereed journal articles. He is the author of four books about creep, structural stability, fracture and size effect, and concrete at high temperatures.

Dr. Bažant has received honorary doctorates from Czech Technical University and the University of Karlsruhe in Germany. He served as editor in chief of the *Journal of Engineering Mechanics*. His many honors include the Prager Medal from the Society of Engineering Science, the Warner Medal from the American Society of Mechanical Engineers, the Newmark Medal, Croes Medal, Huber Prize, and the T.Y. Lin Award from the American Society of Civil Engineers. He has been awarded the L'Hermite Medal in France, the Humboldt Award in Germany, the Torroja Medal in Spain, and Guggenheim, Kajima, JSPS, NATO, and Ford Foundation fellowships.

For the past 25 years, Dr. Bažant has visited CU-Boulder almost annually, and has frequently given seminars on his most current research ideas. His ideas for new research directions have found their way into the dissertations of CU-Boulder students over the years. Dr. Bažant's interaction with the university, which has enriched many faculty and students, has stretched far beyond the normal boundaries of professional acquaintances.

The Board of Regents is pleased to confer the degree, Doctor of Science, *honoris causa*, on Zdeněk P. Bažant in recognition of his substantial contributions to structural engineering and solid mechanics worldwide and his long-standing collaboration with the faculty and students at the University of Colorado at Boulder.