Profesorė Šarlotė Friozė Fišer

Profesorė Š. Friozė Fišer buvoVanderbilto universiteto (JAV, Tenesio valst.) profesorė emeritė ir kviestinė mokslininkė Nacionalinio standartų ir technologijų instituto (JAV) Atominės spektroskopijos grupėje. Gimė 1929 m. rugsėjo 21 d. Nikolaevkoje (Ukraina, Donecko sritis). Tais pačiais metais jos tėvai emigravo į Vokietiją, vėliau į JAV. 1952 m. baigė Britų Kolumbijos universitetą, 1957 m. Kembridžo universitete (Anglija) apgynė matematikos daktaro disertaciją. Dirbo matematikos ir kompiuterių mokslo profesore Britų Kolumbijos, Vaterlo, Pensilvanijos ir Vanderbilto universitetuose. Lietuvos mokslų akademijos užsienio nare tapo 2004 m.

Š. Friozė Fišer buvo viena žymiausių atomo teorijos specialistų, plėtojusi patikslintus atomo teorijos metodus, ypač daugiakonfigūracinį artutinumą, ir taikiusi juos daugelio aktualių atomo teorijos problemų sprendimui. Jos mokslinių darbų sąraše – dvi plačiai žinomos monografijos: „Hartrio ir Foko metodas atomams“ (1977) ir „Atominių struktūrų skaičiavimo metodai“ (1997), bei daugiau negu 300 straipsnių. Š. F. Fišer sukūrė atominių dydžių skaičiavimo programų kompleksus, kurie tapo atominiuose skaičiavimuose plačiausiai pasaulyje vartojamomis programomis. Kaip kviestinė profesore, ji dirbo svarbiausiuose atomo teorijos centruose: Argono nacionalinėje laboratorijoje, L. Berklio laboratorijoje, Harvardo universiteto Teorinės ir atomo fizikos institute, Amsterdamo universiteto Van der Valso ir Zėmano laboratorijose. Ji buvo Malmės (Švedija) universiteto garbės daktarė technikos mokslų srityje.

Š. Friozė Fišer nuo seno bendradarbiavo su Lietuvos atomo teorijos specialistais. Jos vadovaujamame skyriuje kviestiniu profesoriumi yra dirbęs akad. Adolfas Jucys, stažavosi VU TFAI darbuotojai, kartu buvo vykdomi keli tarptautiniai projektai, bendri straipsniai tarptautiniuose žurnaluose.

Profesorė mirė 2024 m. vasario 8 d. eidama 95-uosius metus.

Professor Charlotte Froese Fischer

Foreign Member of the Lithuanian Academy of Sciences since 2004

Charlotte Froese Fischer was a Canadian-American applied mathematician and computer scientist who gained world recognition for the development and implementation of the Multi-Configurational Hartree–Fock(MCHF) approach to atomic-structure calculations and for her theoretical prediction concerning the existence of the negative calcium ion. For this last accomplishment, she was elected to grade of Fellow of the American Physical Society. She was the author of over 300 research articles on computational atomic theory, many of which have had far-reaching impact in the area of atomic-structure calculations.

Ch. Froese Fischer was born on September 21, 1929, in the village of Pravdivka (formerly Nikolayevka), in the Donetsk region, in the present-day Ukraine, to parents of Mennonite descent. Her parents immigrated to Germany in 1929. After a few months in a refugee camp, her family was allowed to immigrate to Canada, where they eventually established themselves in Chilliwack, British Columbia. She obtained both a B.A. degree, with honors, in Mathematics and Chemistry and an M.A. degree in Applied Mathematics from the University of British Columbia in 1952 and 1954, respectively. She then obtained her Ph.D. in Applied Mathematics and Computing at Cambridge University in 1957, pursuing coursework in quantum theory with Paul Dirac. She worked under the supervision of Douglas Hartree, whom she assisted in programming the Electronic Delay Storage Automatic Calculator (EDSAC) for atomic-structure calculations. She served on the mathematics faculty of the University of British Columbia from 1957 till 1968, where she introduced numerical analysis and computer courses into the curriculum and was instrumental in the formation of the Computer Science Department.

Prof. Ch. Froese Fischer spent 1963–64 at the Harvard College Observatory, where she extended her research on atomic-structure calculations. While at Harvard, she was the first woman-scientist to be awarded an Alfred P. Sloan Fellowship. She served as Professor of Applied Analysis and Computer Science at the University of Waterloo (1968–75), Professor of Computer Science at Pennsylvania State University (1974–79). She came to Vanderbilt University in 1980 and worked as research professor of computer sciences for many years. Professor also was a Guest Scientist in the Atomic Spectroscopy Group at the National Institute of Standards and Technology(NIST).

She served as an Atomic Structure Editor for Computer Physics Communications from 1968–1998. Since then she has become internationally known for her software for atomic structure calculations and her research in atomic structure theory.

In 1991 she became a Fellow of the American Physical Society, in part for her contribution to the discovery of negative calcium. In 1995 she was elected a member of the Royal Physiographic Society in Lund, in 2004 a foreign member of the Lithuanian Academy of Sciences and in 2015 she was awarded an Honorary Doctorate in Technology from Malmö University, Sweden.

The professor passed away on February 8, 2024, at the age of 95.