Charles K. (Ned) Birdsall
November 19, 1925 – March 6, 2012
U.C. Berkeley Professor Emeritus and Pioneering Inventor

Charles Kennedy ("Ned") Birdsall, Professor Emeritus at the University of California, Berkeley, and a pioneering inventor and educator in microwave tubes and plasma physics, died Tuesday, March 6, 2012, at his home in Lafayette, California. He was 86.

Born in 1925 in Manhattan, New York, Ned Birdsall graduated from the University of Michigan with bachelor’s and masters degrees in electrical engineering. At Michigan Ned was on the varsity track team and was a champion Big Ten 2 mile runner. He participated in the Naval V-12 program, as well as being a member of the marching band. He then migrated west to Stanford University where he received his PhD in electrical engineering in 1951.

He next spent nine years in labs at Hughes Aircraft Company and General Electric working on microwave tubes, inventing amplifiers and traveling-wave tubes that remain in use today. This work led to the granting of 27 patents, and election in 1962 to Fellow of Institute of Electrical and Electronics Engineers (IEEE) at the age of 36.
In 1959 Ned joined the Electrical Engineering Department at UC Berkeley, launching a four-decade academic career. During this career Ned became known as a pioneering inventor and educator whose contributions to plasma science have made lasting impacts on communications and other technologies.

Among numerous awards and honors for his contributions, Ned was selected as the inaugural recipient for the IEEE Marie Sklodowska-Curie Award in 2011. This Technical Field Award is one of the highest awards in the IEEE hierarchy, and recognizes outstanding contributions to the field of Nuclear and Plasma Sciences and Engineering. His citation is "for theoretical investigations and fundamental discoveries involving microwave tubes, electron beam physics and particle-in-cell simulation of plasma physics."

During his long tenure at UC Berkeley, Ned helped build two groups from scratch: the Plasma Theory and Simulation Group; and the Energy and Resources Group. These two groups, under Ned’s mentorship, have nurtured a large number of PhD students and junior faculty members, many of whom have become leaders in science and engineering. For his many contributions to U.C. Berkeley Ned was awarded the Berkeley Citation in 1991.

Outside his professional life, Ned was known for his love of hiking and skiing in the Sierra Nevada mountains. He also loved long-distance running, completing many road races and marathons, including two Boston Marathons, and the Napa Marathon in his 70s. He was a loyal member of the Orinda Roadrunners.

Ned is survived by Ginger, his wife of 30 years, daughter Barbara Hagen of Bend, Oregon, son Tom Birdsall of San Francisco, son John Birdsall of Yountville, Ginger’s daughter Michele Proffitt of Modesto, son Andrew Pletcher of Capitola and daughter, Sandra Glendinning of Alameda, along with eight grandchildren and one great grandchild. He was preceded in death by daughters Anne and Beth.

A memorial service is planned for Sunday, April 29 at 1 PM at the Faculty Club on the University of California Campus, Berkeley. In lieu of flowers, the family requests donations be sent to: The Charles K. (Ned) Birdsall Graduate Research Fund at University Relations, 2080 Addison Street, MC #4200, Berkeley, CA, 94720-4200. Checks should be made out to U.C. Berkeley Foundation.
DIRECTIONS TO FACULTY CLUB PARKING

(Please carpool if possible)

From Highway 24: Take Claremont exit and travel to intersection of Claremont Ave. & Ashby. Follow directions below.

From Contra Costa County, come to intersection of Claremont Avenue & Ashby (either down Tunnel Road or over the hill past Fish Ranch Road, behind Claremont Hotel. Follow directions below.

All:
At intersection of Claremont Avenue and Ashby, turn north, passing gates at St. Clements Episcopal Church. Go straight ahead; street becomes Belrose.

Left on Derby..... Right on Warring ("Zachary's Corner" sign), past Clark Kerr campus.
Pass Stoplight at Dwight Way, continue ahead on Piedmont Avenue.

International House, then stadium, will be on your right.

At the end of the median strip (island) and stop sign, make a U-turn and take a right at first driveway into the campus, marked by a large blue sign "University Eye Center."

Go about 25 feet and turn left at the yellow sign that says "Boalt" parking lot and park your car. It is within walking distance of the Faculty Club, but there will be a shuttle available. There will be an attendant at the lot to direct parking.

Overflow parking will be directed to the Bowles Hall parking lot.

(Please carpool if possible.)