BECHTOLSHEIM, Lulu (Hofmann). May 27, 1902–August 29, 1989.
Realgymnasium der Schillerschule (Frankfurt am Main) (*Abitur* 1922), Universität Zürich (PhD 1927).

Lulu Hofmann was the middle daughter of Clara (Olshauson) (1875–1938) and Otto Hofmann (1863–1956). Her parents were born in Germany, her mother in Mertschütz and her father in Frankfurt-am-Main. Her mother was the daughter of a theologian; she attended a Lyzeum, a secondary school for girls, and became a homemaker after her marriage in 1897. Her father attended a Gymnasium, the classical German secondary school, and was a stockbroker. Lulu Hofman and her older sister, Emy (1900–1994), were both born in New York City. Her younger sister, Ilse, was born in 1910 in Frankfort, Germany. Both sisters attended the same Gymnasium in Frankfort as Lulu; her older sister also attended an academy of art in Karlsruhe, and her younger sister studied at universities in Brussels and in Paris; they later married and became homemakers. Her older sister was also a painter, and her younger sister was a certified translator. Her parents were supportive of their daughters' higher education.

Hofmann was raised bilingually in German and English and received her complete education in Germany and Switzerland. She attended the Realgymnasium der Schillerschule in Frankfurt and passed her Abitur, allowing her to attend university, in 1922. She then attended the Universität Freiburg 1922–23 and the Universität Zürich 1923–26. During 1924–26 she also studied part time at the Eidgenössiche Technische Hochschule (ETH) in Zurich, where Hermann Weyl held the chair in mathematics until 1930, when he took the chair at Göttingen that was vacated when Hilbert retired. Starting in 1926, Hofmann assisted Weyl in translating German manuscripts into English. Hofmann received her doctorate from the Universität Zürich in 1927 with a dissertation directed by E. G. Togliatti, who was on the faculty 1924–26. While there she also studied philosophy under Edmund Husserl and Martin Heidegger. A niece later indicated that Hofmann had described Weyl as someone with whom she had worked closely, both as a student and afterwards.

Lulu Hofmann returned to the United States in January 1927 and gave an address of Springfield, Ohio, when she applied for membership in the AMS that spring. She was at Columbia University as an assistant in mathematics 1927–28 and as a lecturer 1928–29; she was an instructor at Barnard College 1929–37. She worked closely with Edward Kasner of Columbia in that period, assisting him with a paper that appeared in the *Transactions* of the AMS in 1928, and doing joint work with him. Hofmann also continued to assist Weyl, and in a published version of lectures he delivered at Yale University in 1931 he wrote: "I do not want to omit acknowledging my indebtedness to my friend, Dr. Lulu Hofmann of Columbia University, ... for the devoted assistance which she has rendered me in the translation of my manuscripts into English on this as well as on similar previous occasions" (*The Open World*, v). In 1933 Weyl came from Göttingen to the Institute for Advanced Study, and Hofmann continued to help him with English. She later translated his book *Symmetry* into German.

In November 1936 Lulu Hofmann married Baron Wilhelm Alfred von Bechtolsheim (1881–1968). He was born in Upper Bavaria, the son of the Chamberlain for the Grand Duke of Luxemburg and later for the King of Bavaria. Baron von Bechtolsheim had been a Commander in the Imperial German Navy until 1921 and

immigrated to the United States in 1926. He later was a pharmaceutical salesman. They had no children, although he had children by a previous marriage.

During the summer session of 1937 Lulu von Bechtolsheim was an instructor at Hunter College. She wrote in 1937 that she was then writing a textbook on analytic geometry that was different from current texts, and that the material had been used in her classes during the last three terms. That fall she became an instructor at Queens College where she remained until 1940. She made a trip to Europe in summer 1938. By 1944 she and her husband had moved to California, where, during the winter quarter of 1943–44, she was a lecturer in mathematics at Stanford University. Lulu Bechtolsheim, as she was then known, spent the largest part of her career at the University of Redlands, east of Los Angeles. She was assistant professor 1944–50, associate professor 1950–56, and professor 1956–61, before her retirement in 1961. In addition to her role as a mathematics professor, she also taught astronomy, Italian, French, and German at Redlands and knew some Spanish, Portuguese, and Greek. She served, as well, on the honors committee and committee on comprehensive examinations. She also was an acting assistant professor of mathematics at Stanford in summer 1947 and attended an institute for college mathematics teachers at Stanford in summer 1955.

After her retirement, Bechtolsheim continued her scholarly activity, mainly by engaging in a variety of translations of mathematical manuscripts: by Leopold Nachbin from Portuguese into English, by George Pólya from English into German, and by Bruno de Finetti from Italian into German. The translations into German appeared in the Wissenschaft und Kultur series published by Birkhäuser Verlag.

Bechtolsheim was interested in poetry. From 1972 she was a member of the Anthroposophical Society, an organization promoting the spiritual philosophy based on the works of Rudolf Steiner, and from 1981 she belonged to the Christian Community, inspired by his work as well.

Lulu Bechtolsheim died following an intestinal blockage in 1989 at age eighty-seven in Redlands, California. She was survived by two step-sons in West Germany and a sister. Services were held at the Christian Community Church in North Hollywood, and interment was at Hillside Memorial Park.

Organizational affiliations: AMS, MAA, AAUP, Sigma Xi.

Dissertation:

1927 [Hofmann, L.] Über einige spezielle Strahlenkongruenzen, die mit analytischen Funktionen zusammenhängen. PhD dissertation, Universität Zürich, directed by Eugenio Giuseppe Togliatti. Printed by G. Leemann, Zürich. Review: *JFM* 53.0318.02 (G. Feigl).

Publications:

1928a [Hofmann, L.] Synthetic proof of Professor Kasner's pentagon theorem. *Amer. Math. Monthly* 35:356–58. Review: *JFM* 54.0675.04 (G. Feigl).

1928b [Hofmann, L.] with E. Kasner. Homographic circles or clocks. *Bull. Amer. Math. Soc.* 34:495–503. Reviews: *JFM* 55.0794.03 (F. Lösch); *Rev. semestr. publ. math.* 34, pt. 1: 38 (R. C. Archibald). Presented as "Homographic circles" to the AMS, New York City, 25 Feb 1928.

1929a [Hofmann, L.] On a certain metric aspect of plane projective transformations. *Bull. Amer. Math. Soc.* 35:391–400. Reviews: *JFM* 55.0353.03 (E. Pannwitz); *Rev. semestr. publ. math.* 35:16 (D. J. Korteweg). Presented as "Remarks on a certain aspect of plane projective transformations" to the AMS, New York City, 27 Oct 1928; abstract: *Bull. Amer. Math. Soc.* 35:5–6 #8.

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1955 (Translator from the English) *Symmetrie*, by H. Weyl. Basel: Birkhäuser Verlag. Second German ed. (reprint): 1981. Basel: Birkhäuser Verlag. Review: *Zbl* 522.20001 (W. Kugler).
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1965a (Translator from the Portuguese) *The Haar Integral*, by L. Nachbin. Princeton, NJ: Van Nostrand. Review: *Zbl* 127.07602 (H. Boseck). Reprint: 1976. Huntington, NY: Robert E. Krieger Publishing Co.
1965b (Translator from the Portuguese) *Topology and Order*, by L. Nachbin. Van Nostrand Mathematical Series 4. Princeton, N.J.: Van Nostrand. Reviews: *MR* 36 #2125 (D. R. Brown); *Zbl* 131.37903 (L. E. Ward, Jr.). Reprint: 1976. Huntington, NY: Robert E. Krieger Publishing Co.
1966 (Translator from the English) *Vom Lösen mathematischer Aufgaben. Einsicht und Entdeckung, Lernen und Lehren. Band I*, by G. Pólya. Basel: Birkhäuser Verlag. Second ed. (reprint): 1979. Basel: Birkhäuser Verlag.
1967 (Translator from the English) *Vom Lösen mathematischer Aufgaben. Einsicht und Entdeckung, Lernen und Lehren. Band II*, by G. Pólya. Basel: Birkhäuser Verlag. Second ed. (reprint): 1983. Basel: Birkhäuser Verlag.
1974 (Translator from the Italian) *Die Kunst des Sehens in der Mathematik*, by B. de Finetti. Basel: Birkhäuser Verlag. Review: *Zbl* 279.00001 (K. Strubecker).

Abstracts not listed above:
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1930b [Hofmann, L.] Plane transformations preserving centers of gravity, II. *Bull. Amer. Math. Soc.* 36:800 #401. Presented to the AMS, New York City, 25 Oct 1930.
1931a [Hofmann, L.] On a certain line locus associated with the lines of two distinct projectively related planes in euclidean space. *Bull. Amer. Math. Soc.* 37:817 #342. Presented by title to the AMS, New York City, 31 Oct 1931.
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"Lulu Bechtolsheim." (Obituary) *Redlands Daily Facts*, 30 Aug 1989.

Other sources: Owens questionnaire 1937; Smithsonian questionnaire 1985; communications with niece provided by Prof. J. Beery, Redlands University; University of Redlands Alumni Records Office; "Wilhelm Alfred Bechtolsheim," (Obituary) *Redlands Daily Facts*, 5 Nov 1968; Hermann Weyl, *The Open World: Three Lectures on the Metaphysical Implications of Science* (New Haven: Yale University Press, 1932); US census 1900 NY, SSDI.

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