

## LINKS ABOUT THE LIFE AND WORK OF FELIX HAUSDORFF

OSKAR HENRIKSSON

After all hard work we've devoted to learning about Hausdorff spaces the last couple of weeks, it might be interesting to know something about who the person behind the name actually was.

In this document, I've collected some links to places where you can learn more about various aspects of the life and work of **Felix Hausdorff** (1868–1942). Perfect if you need a break from studying for you exams, or if you want something math-related to read during your summer holidays!

- (1) Page through his classical textbook *Grundzüge der Mengenlehre* (“Basics of Set Theory”) from 1914, where he summarized everything that was known at the time about set theory, and also laid the foundation of topology as we know it today: <https://archive.org/details/grundzgedermen00hausuoft/page/213/mode/2up>.

On p. 213, he gives his definition of a topological space (formulated in terms of neighborhoods, instead of open subsets). Even if you don't know any German, you might recognize the point (D), which we nowadays have removed from the definition, and instead refer to as the Hausdorff property! Note that the notation has changed since that time; for instance, Hausdorff writes  $\mathfrak{D}(U_x, V_y) = 0$  instead of  $U_x \cap V_y = \emptyset$  ( $\mathfrak{D}$  as in “Durchschnitt”).

- (2) Hausdorff was not only a mathematician! He was also very interested in philosophy, literature, social science, and poetry. To get a glimpse of this side of him, you can try reading the poem “To The Wingless Ones” (translation by Benjamin Elkins), written by Hausdorff under his pseudonym **Paul Mongré**: <https://scholarship.claremont.edu/jhm/vol11/iss2/23/>.
- (3) Read the article about him on the MacTutor History of Mathematics Archive (a great resource for mathematical biographies): <https://mathshistory.st-andrews.ac.uk/Biographies/Hausdorff/>.
- (4) Listen to this very nice lecture about Felix Hausdorff from the University of Bonn: <https://youtu.be/E5hQgubKWl8>. It's in German, but the automatic English subtitles in Youtube are pretty good. Here's also a German podcast episode about him: <https://rooch.de/felix-hausdorff-wesen-der-raeume-mathematik-topologie/>.
- (5) Read this Twitter thread about the horrific and heartbreaking way that Hausdorff's life ended, as a small but tragic part of one of the darkest chapters of modern history: <https://twitter.com/DaveJensenMath/status/1458118528716902407>.

