

---

# Bibliography

- [BrLi1983] H. Brezis, E. Lieb, *A relation between pointwise convergence of functions and convergence of functionals*, Proc. Amer. Math. Soc. **88** (1983), 486–490.
- [De1901] M. Dehn, *Über den Rauminhalt*, Mathematische Annalen **55** (1901), no. 3, pages 465–478.
- [deG1981] M. de Guzmán, Real variable methods in Fourier analysis. North-Holland Mathematics Studies, 46. Notas de Matemática , 75. North-Holland Publishing Co., Amsterdam-New York, 1981.
- [Go1938] K. Gödel, *Consistency of the axiom of choice and of the generalized continuum-hypothesis with the axioms of set theory*, Proc. Nat. Acad. Sci. **24** (1938), 556–557.
- [Me2003] A. Melas, *The best constant for the centered Hardy-Littlewood maximal inequality*, Ann. of Math. **157** (2003), no. 2, 647–688.
- [So1970] R. Solovay, *A model of set-theory in which every set of reals is Lebesgue measurable*, Annals of Mathematics **92** (1970), 1–56.
- [StSk2005] E. Stein, R. Shakarchi, Real analysis. Measure theory, integration, and Hilbert spaces. Princeton Lectures in Analysis, III. Princeton University Press, Princeton, NJ, 2005.
- [StSt1983] E. Stein, J.-O. Strömberg, *Behavior of maximal functions in  $R^n$  for large  $n$* , Ark. Mat. **21** (1983), no. 2, 259–269.
- [Ta2008] T. Tao, Structure and Randomness: pages from year one of a mathematical blog, American Mathematical Society, Providence RI, 2008.
- [Ta2009] T. Tao, Poincaré’s Legacies: pages from year two of a mathematical blog, Vol. I, American Mathematical Society, Providence RI, 2009.
- [Ta2010] T. Tao, An epsilon of room, Vol. I, American Mathematical Society, Providence RI, 2010.
- [Vi1908] G. Vitali, *Sui gruppi di punti e sulle funzioni di variabili reali*, Atti dell’Accademia delle Scienze di Torino **43** (1908), 75–92.

Banach-Tarski paradox 3  
basic limit function 132  
Borel-Banach theorem 103  
Brouwer’s covering lemma 132  
continuously differentiable function 10  
continuously differentiable curve 36  
convergence in  $L^1$  norm 95  
convergence in  $L^\infty$  norm 95  
convergence in distribution 118