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Paata Ivanisvili* (pivanisv@uci.edu), **Dong Li** (madli@ust.hk), **Ramon van Handel** (rvan@princeton.edu) and **Alexander Volberg** (volberg@math.msu.edu). *L1 Poincare inequality on the Hamming cube.*

In 2007, L1 Poincare inequality on the Hamming cube was obtained with the constant $\pi/2$ by Ben-Efraim–Lust-Piquard using noncommutative techniques. Recently we found two different commutative proofs which give the same constant $\pi/2$. It is tempting to conjecture that $\pi/2$ is sharp but I will show you another (fourth) proof which says that the sharp constant is strictly less than $\pi/2$. The problem also has its continuous counterpart: Gaussian L1 Poincare inequality. In the latter case, there is a trick of Maurey–Pisier which is based on the rotational invariance of the Gaussian measure and it gives the sharp constant $\sqrt{\pi/2}$. So what is wrong with the Hamming cube? (Received January 26, 2019)