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Yunping Jiang* (yunping.jiang@qc.cuny.edu), Department of Mathematics, Queens College of CUNY, 65-30 Kissena Blvd, Flushing, NY 11367. *Graph of Metric Entropy on the Teichmueller Space of Expanding Blaschke Products*. Preliminary report.

I will construct a smooth path in the space of expanding Blaschke products on the unit circle such that it tends to a non-expanding Blaschke product on the unit circle. I will show that the metric entropy on this path tends to zero. It turns out that the limiting non-expanding Blaschke product on the unit circle is conjugate to the famous Boole map on the real line. Thus I will give a new explanation of Boole's formula discovered more than one hundred years ago. By modifying this path, I construct another smooth path of expanding Blaschke products on the unit circle preserving the Lebesgue measure such that it tends to a totally degenerate map. The metric entropy on this path tends to zero again. These two paths represent the same smooth path in the Teichmueller space of expanding Blaschke products on the unit circle. Thus I am able to give a global picture of the metric entropy on the Teichmueller space of expanding Blaschke products on the unit circle. Furthermore, this result gives a global picture of the measure-theoretic entropy on the main cardioid of the Mandelbrot set. (Received September 04, 2019)