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Steven Lazzaro* (lazzaros@mcmaster.ca). *Generating Theories of II_1 -Factors*. Preliminary report.

In the study of II_1 -factors, there are two extensively studied properties known as Property Γ and McDuff's Property, which arose from the work of J. von Neumann and D. McDuff, respectively. It is immediate from definition that McDuff's Property implies Property Γ , and so one may consider partitioning the class of II_1 -factors into three subclasses: McDuff factors, Γ -non-McDuff factors, and non- Γ factors. Somewhat recent work by R. Boutonnet, I. Chifan, and A. Ioana shows that there exists continuum many distinct continuous theories of McDuff factors, while followup work by I. Goldbring, B. Hart, and H. Towsner constructs explicit sentences distinguishing these theories. In this presentation, I aim to show how to apply the work of the aforementioned authors to obtain identical results for the class of Γ -non-McDuff factors, and briefly discuss how these techniques might be modified to be able to say something about the class of non- Γ -factors. (Received February 04, 2020)