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## What is a Physical Law? MARC LANGE, University of North Carolina at Chapel Hill

Laws of nature are distinguished from logical and mathematical truths, on the one hand, and from "accidental facts" (such as that every atom in some particular spatiotemporal region is lead), on the other hand. What is it for some fact to be a law? Roughly speaking, laws, unlike accidents, would still have held no matter what – even if other things had been different. For instance, if Earth's axis had been tipped differently, then various accidental features of Earth's seasons would have been different, but the laws of nature would have been no different. However, this way of drawing the distinction between laws and accidents threatens to appeal to the very distinction that it is supposed to illuminate: some fact p is a law if and only if for any hypothetical state of affairs q that is logically consistent with the laws, p would still have held had q been the case. (The risk of circularity arises from the requirement that q be logically consistent with the laws.) In this talk, I will explain how to avoid referring to lawhood on the right side of this "if and only if." The resulting account of the distinction between laws and accidents nicely explains the sense in which things "cannot" break the laws.