The Use and Misuse of Patent Data: Issues for Corporate Finance and Beyond

Josh Lerner & Amit Seru

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Patents and citations are powerful tools for understanding innovative activity inside the firm, and are increasingly use in corporate finance research. But due to the complexities of patent data collection and the changing spatial and industry composition of innovative firms, biases may be introduced. We highlight several patent-level biases induced by truncation of reported patent awards and citations, affecting estimates of time trends and patterns across technology classes and regions. We then introduce measures of patent and citation biases. When aggregated at the firm level, these survive popular methods of adjustment and are correlated with firm-level characteristics. We show that these issues can lead to problematic – and ex ante predictable – inferences, using several examples from prominent streams of finance literature that use patent data. We suggest a number of concrete steps that researchers can employ to avoid biased inferences.

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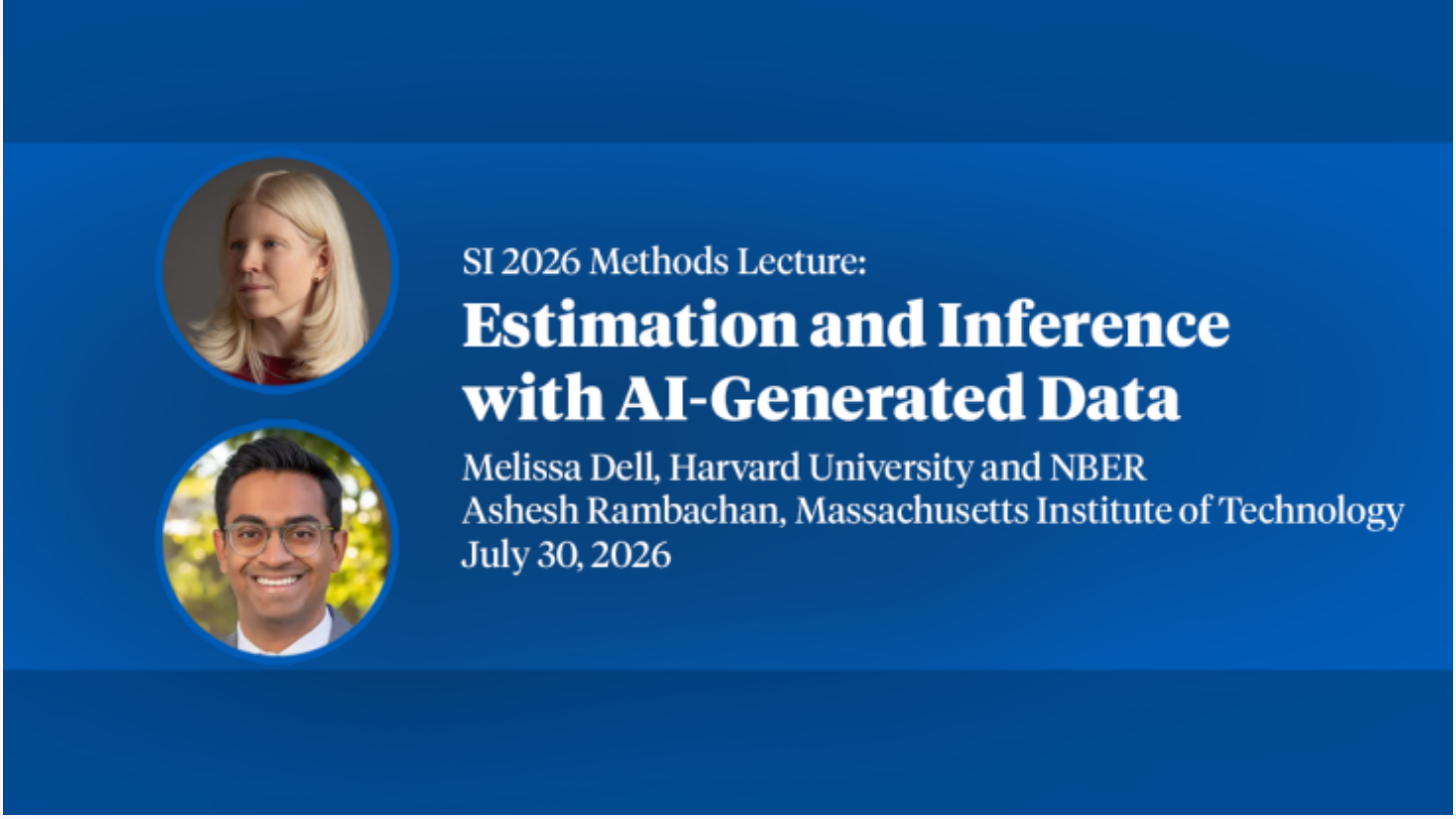


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Contact Us
1050 Massachusetts Avenue
Cambridge, MA 02138
617-868-3900
info@nber.org
webaccessibility@nber.org

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