Preprint (UNDEFINED)

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                    <persName>

                       <forename type="first">Suvrat</forename>

                       <surname>Raju</surname>

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                    <affiliation ref="#struct-247160"></affiliation>

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                       <author role="aut">

                          <persName>

                             <forename type="first">Suvrat</forename>

                             <surname>Raju</surname>

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                          <affiliation ref="#struct-247160"></affiliation>

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                 <abstract xml:lang="en">We used Bayesian methods to compare the predictions of probabilistic risk assessment -- the theoretical tool used by the nuclear industry to predict the frequency of nuclear accidents -- with empirical data. The existing record of accidents with some simplifying assumptions regarding their probability distribution is sufficient to rule out the validity of the industry's analyses at a very high confidence level. The debate on nuclear liability indicates that the industry has independently arrived at this conclusion. We also discuss the Indian situation, where we show that the existing operating experience provides insufficient data to make any reliable claims about the safety of future reactors. We briefly discuss some policy implications. </abstract>

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