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## **Theory on the distributions and predictive capability of verification faults**

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Software engineering is a relatively young discipline with just few general theories. General problem is in lack of industrial data, and/or inconsistently reported data and studies. Theory on the predictive capability of verification faults has been grounded by systematic approach for empirical research on fault distributions suggested by Fenton and Ohlsson followed by replications. Fault distributions are interesting because of their seemingly similar behavior across different environments. This talk summarizes our recent findings on fault distributions and the predictive capability of early verification on late detected faults. We will also discuss some novel findings related to the predictive capability and distributions of unit verification faults. The results are of particular importance for large scale complex systems that are developed in evolutionary fashion with majority of reused software.