Under- and Overdispersion

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Abstract: A synopsis of probability models for over- and underdispersion is provided, looking at their origins, motivation, first main contributions, important milestones, and applications. As the field of accident studies has received much attention, and various theories have been developed for the interpretation of factors underlying an accident situation, most of the models will be presented in accident or actuarial contexts. Of course, with appropriate parameter interpretations, the results are adaptable in a great variety of other situations in fields ranging from economics, inventory control, and insurance through to demometry, biometry, psychometry, and web access modeling.