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### **Semiparametric Model for Prediction of Individual Claim Loss Reserving**

The estimation of loss reserves for incurred but not reported (IBNR) claims presents an important task for insurance companies to predict their liabilities. Conventional methods, such as ladder or separation methods based on aggregated or grouped claims in the form of "run-off triangle", have been illustrated to have some drawbacks. Recently, individual claim loss models have been introduced to overcome the shortcomings of aggregated claim loss models, but they have limitations too. In this paper, we propose an alternative individual claim loss model, which has a semiparametric structure and can be used to fit flexibly the claim loss reserving. Local likelihood is employed to estimate the parametric and nonparametric components of the model, and their asymptotic properties are discussed. Then the prediction of the IBNR claim loss reserving is investigated. A simulation study is carried out to evaluate the performance of the proposed methods.