A New Design Method of Ballasted Track Taking into Consideration on Track Irregularity Growth

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The plastic deformation of ballasted track structure caused by train running gives rise to so-called track irregularity. It is necessary to predict track irregularity growth for reasonable design of ballasted track. For this purpose we propose a new prediction model for it focusing on the difference between the plastic deformation of a ballasted track structure at rail joint and that at other section. Further we propose a new method of design of ballasted track in which we take into consideration the performance of vehicle dealing with track irregularity.