Fatigue Design with Cumulative Fatigue Damage for Members of Steel Bridge

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Fatigue design will be updated in the revised design standards for railway steel bridges. The new proposed method gives more accurate verification of fatigue strength of steel members by calculating cumulative fatigue damage directly. This is because the fatigue limit and structural systems other than simple girder can be considered in the calculation process of the cumulative fatigue damage. This paper describes the details of the proposed fatigue design method and shows examples of design computation by this method.