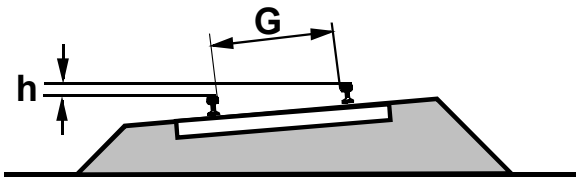
Superelevation in Curves

Recommendation **Measurements in mm** **1983 Edition**

1. Purpose and Terminology

For prototype trains, banking is necessary to ensure safety in curves, in which the lateral acceleration created by the curve is compensated in total or in part by the superelevation of the outer rail by the value ***h*** above the level of the inner rail (fig. 1).

Fig. 1



In model railroad operation, superelevation is not required for reasons of physics and actually increases the likelihood of rolling stock toppling from the track. Rather, its use is for strictly aesthetic reasons and should be kept within the maximum (G/15) specified by the following table:

G	6,5	9	12	16,5	22,5	32	45
h_{max}	0,4	0,6	0,8	1	1,5	2	3

2. Description

In the curve, the interior rail maintains the level of the straight track, while the outer rail is superelevated by the value ***h*** above the inner rail.

Banked curves should also be laid in conjunction with easements (NEM 113). The length of the ramp superelevating the outer rail should equal the length of the easement.

The banking superelevation shall be applied to the easement in a linear fashion over the length of the easement (Fig. 2).

Fig. 2