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## Comparative Study between E-Shaped and Fan-Shaped Electromagnetic Guideway for HTS Maglev

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Permanent magnet guideway (PMG) has commonly been used for an HTS maglev system so far. In some previous studies, electromagnetic guideway (EMG) was proved to have some advantages in a practical HTS maglev construction.

EMGs with different geometries produce different magnetic field distributions and have different performance characteristics in a HTS maglev system. In this study, comparative experiments of E-Shaped and Fan-Shaped EMG specimens have been conducted under the comparable conditions of vertical direction component of magnetic flux density, power input, magnetic potential and magnetic potential per unit length along the direction of the travelling. The experimental results were compared and discussed combined with the results of 2D numerical simulations. The results may be helpful for further development of EMGs for HTS maglev applications.

**Primary authors:** Mr ZHANG, Yan (Tianjin University); Prof. XIN, Ying (Tianjin University); Dr HONG, Wei (Tianjin University); Prof. LI, Chao (Tianjin University); Mr LI, Ning (Tianjin University); Ms LU, Jianing (Tianjin University); Mr LI, Gengyao (Tianjin University); Ms XING, Yuying (Tianjin University)

**Presenter:** Mr ZHANG, Yan (Tianjin University)

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