

Dynamic Spectral Graph Drawing

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Spectral graph drawing uses eigenvectors of the Laplacian matrix $L(G)$ of a graph $G = (V, E)$ to assign coordinates to its vertices. These methods are naturally suited for dynamic graph layout, because moderate changes of a graph, e.g., insertion and deletion of few edges, yield moderate changes of the layout under very weak assumptions. We discuss some general principles for dynamic graph layout and derive a dynamic spectral layout approach for the animation of small-world models.

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