| Authors / Technique | design guideline | | | | | | | | | | | | | visual channel | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [DG1] visualization space | [DG2] complexity vs. density | [DG3] hybrid visualizations | [DG4] perceptually uniform properties | [DG5] redundant mapping | [DG6] importance-based mapping | [DG7] view point independence | [DG8] simplicity and symmetry | [DG9] orthogonality and normalization | [DG10] intuitive / semantical mapping | [DG11] balanced glyph placement | [DG12] facilitate 3D depth perception | [DG13] interactive occlusion control | color | shape | size / height / length | orientation | texture | opacity |
| Brewer [Bre99]: Color use guidelines | | | | ■ | | ■ | | | | ■ | | | | ■ | | | | | |
| Cleveland & McGill [CM84]: Graphical perception | 2D/3D | | | ■ | | | | | ■ | | ■ | | | ■ | ■ | ■ | ■ | ■ | |
| Crawfis & Max [CM93]: Vector field visualization | 3D | 2 | ■ | | | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | | | ■ | | ■ |
| de Leeuw & van Wijk [dLvW93]: Local flow probe | 3D | -3 | ■ | | | ■ | | | ■ | ■ | | | | ■ | ■ | ■ | ■ | | |
| Healey & Enns [HE99]: Combining textures and colors | 2.5D | 1 | ■ | ■ | | | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | |
| Healey et al. [HBE96]: Preattentive processing | 2D | | ■ | ■ | | | | ■ | ■ | | ■ | | | ■ | ■ | ■ | ■ | ■ | |
| Kindlmann & Westin [KW06]: Glyph packing | 3D | 2 | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | | ■ | ■ | |
| Kindlmann [Kin04]: Superquadric tensor glyphs | 2.5D | 1.5 | ■ | | | | ■ | ■ | ■ | ■ | | | | | ■ | | ■ | ■ | |
| Kirby et al. [KML99]: Concepts from painting | 2D | 1 | ■ | | | ■ | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ |
| Laidlaw et al. [LAK*98]: Stochastic glyph placement | 2D | 2 | ■ | | | ■ | | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ |
| Li et al. [LMvW10]: Symbol size discrimination | 2D | | | ■ | | | | | ■ | | | | | | ■ | ■ | | | |
| Lie et al. [LKH09]: Design aspects of glyph-based 3D visualization | 3D | 2 | | ■ | ■ | | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ |
| McGill et al. [MTL78]: Variations of box plots | 2D | -3 | | ■ | ■ | ■ | | ■ | ■ | ■ | | | | | ■ | ■ | | | |
| Meyer-Spradow et al. [MSSD*08]: Surface glyphs | 2.5D | 0 | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | | | ■ |
| Peng et al. [PWR04]: Clutter reduction using dimension reordering | 2D | 1 | | ■ | ■ | | | ■ | ■ | | ■ | | | | ■ | ■ | | | |
| Pickett & Grinstein [PG88]: Stick figures | 2D | 3 | | ■ | ■ | | | ■ | ■ | | | | | | | | ■ | ■ | |
| Piringer et al. [PKH04]: Depth perception in 3D scatterplots | 3D | | | | | | | | ■ | ■ | | ■ | ■ | ■ | | ■ | | | ■ |
| Rogowitz et al. [RTB96]: How not to lie with visualization | 3D | | ■ | ■ | | ■ | | | ■ | ■ | | | | ■ | | | | | ■ |
| Tominski et al. [TSWS05]: Helix glyphs on geographic maps | 2.5D | -2 | ■ | | ■ | | | | | ■ | ■ | ■ | | ■ | | ■ | | | |
| Treinish [Tre99]: Task-specific visualization design | 2.5D | -2 | ■ | ■ | | ■ | | | ■ | ■ | ■ | | | ■ | ■ | | ■ | ■ | |
| Ward & Guo [WG11]: Shape space projections | 2D | 3 | | ■ | ■ | | | ■ | | | | | | ■ | ■ | ■ | | | |