Exploration of the 3D Treemap Design Space

To design 3D Treemap Visualizations, four choices have to be made:

1. **Relationship**: Containment, Adjacency or Overlap
2. **Graphics Primitive**: Boxes, Cylinders, Spheres,...
3. **Layout Method**: Slice&Dice, Squarified, Strip, Circle Packing,...
4. **Alignment Method**: axis-parallel, radial, free

Each of these choices can be varied to yield new 3D Treemaps:

- **Relationship**
  - CIRCULAR TREemap: Adjacent cylinders in a circle-packing layout
  - VARIATION: As above, but with contained instead of adjacent cylinders

- **Graphics Primitive**
  - TREE CUBE: Contained boxes in an axis-parallel strip layout
  - VARIATION: As above, but with spheres instead of boxes for all leaves

- **Layout Method**
  - BEAMTREE: Adjacent cylinders in an axis-parallel Slice&Dice layout
  - VARIATION: As above, but with a squarified instead of a Slice&Dice layout

- **Alignment Method**
  - INFORMATION PYRAMID: Adjacent frustums of pyramids in an axis-parallel Slice&Dice layout
  - VARIATION: As above, but with a radial instead of an axis-parallel alignment

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