

A Venn diagram illustrating the relationships between four mathematical concepts: Concave, Convex, Submodular, and DR-submodular. The diagram consists of four overlapping circles. The top-left circle is brown and labeled 'Concave'. The top-right circle is blue and labeled 'Convex'. The bottom-left circle is green and labeled 'Submodular'. The bottom-right circle is red and labeled 'DR-submodular'. The 'DR-submodular' circle is nested within the 'Submodular' circle. The 'Submodular' circle overlaps with both the 'Concave' and 'Convex' circles. The 'Concave' and 'Convex' circles overlap each other. The 'DR-submodular' circle overlaps with both the 'Submodular' and 'Convex' circles.

**Concave**

**Convex**

**Submodular**

**DR-submodular**