Characterisations of good convex cones

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There are many properties of facial structure of convex sets that coincide in a lower-dimensional setting but differ in higher dimensions. This talk will cover several such different properties and their relations, including facial exposure, facial dual completeness (niceness), amenability and projectional exposure. Even though the definitions of these properties have a different nature, they form a neat hierarchy. Based on an example of sufficient and necessary conditions for niceness obtained using lexicographic tangents, an argument can be made about a possibility to explain these different notions and their relations using a unified approach.

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