TANGENT MEASURES AS A TOOL TO UNDERSTAND MEASURES LOCALLY

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ABSTRACT. Tangent measures to a measure at some point are sequential weak limits of scaled versions of the measure near this point. It has been noted with many examples that this scaling process preserves much local information of the measure, and we will see this by looking at the properties of the corresponding tangent measure. In this presentation I will give an example of this by showing how the porosity of a measure near some point is connected to the size of the support of tangent measures near that point. All the needed definitions will be given and explained during the presentation and only basic knowledge of measure theory is assumed.