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Determination of mixing height in the city of Basel - first result

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The depth of the mixing layer is an important scaling parameter for air pollution measurements and modelling. For a flat terrain a set of methods to define the mixing layer height are available. We want check several of this approach for an urban area. We work with a set of data of the intensive operational period (IOP) of Basel Urban Boundary Layer Experiment project (BUBBLE). Several methods are used to determine the ML height from remote sensing measurement, in stable conditions a Richardson based approach is used for RASS measurements, in convective conditions a (gradient) backscatter intensity profile or signal to noise ratio based approach is used for wind profiler measurements. The first results of this work are discussed and any case studies are shown.