FINITE DETERMINATION OF HOLOMORPHIC MAPPINGS IN POSITIVE CODIMENSION

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Abstract: In recent works, together with B. Lamel, we provided a number of results concerning the determination of holomorphic mappings between real submanifolds in complex spaces of different dimension (with the dimension of the target space exceeding the dimension of the source space) by their jets of some (fixed) finite order. These results, valid for sources which are minimal real-analytic and targets which are real-algebraic, fall into two different categories: One type of result characterizes a large class of mappings which are finitely determined without any additional conditions on the target (we call these non-collapsing maps). Another type of result is applicable for every map which is CR-transversal, if we impose (natural) conditions on the target. This talk discusses both types of result and highlights the role of quasi-finite type in this context. A subsequent talk by B. Lamel will dive into the techniques employed in the proofs of these results.