In the present paper we mathematically prove several stability results concerning the problem of reconstructing binary pictures from their noisy projections taken from two directions. Stability is a major requirement in practice, because projections are often affected by noise due to the nature of measurements. Reconstruction from projections taken along more than two directions is known to be a highly unstable task. Contrasting this result we prove several theorems showing that reconstructions from two directions closely resemble the original picture when the noise level is low and the original picture is uniquely determined by its projections.
TUM Einrichtung:
Lehrstuhl für Angewandte Geometrie und Diskrete Mathematik

Occurences:
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