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Recent developments in practical discrete tomography

Abstract

Discrete tomography is an image reconstruction method that exploits prior knowledge of the set of greylevels the image the pixels of the image can have. In practice, it can be applied to the reconstruction of objects that are known to be composed of only a small number of materials. The Discrete Algebraic Reconstruction Technique (DART) has been put forward as a discrete tomography reconstruction method capable of dealing with practical X-ray datasets. We will introduce the principles of DART and then go deeper into the pros and cons of the method. Next, the latest developments are discussed to alleviate some of the 'cons' and finally some recent applications of DART are discussed.