ON CONVEXITY OF A PLANAR DOMAIN WITH A PAIR OF CONCAVE TOMOGRAPHY PROJECTIONS

V. P. Golubyatnikov

We describe simple sufficient conditions on tomography-type measurements of a planar set which imply convexity of this set. The cases of partial convexity and higher-dimensional sets are considered as well.

Key words and phrases: convexity, concavity, geometric tomography, rearrangement of a function.

Golubyatnikov Vladimir Petrovich
   Sobolev Institute of Mathematics,
   Novosibirsk, 630090 Russia.
   E-mail: glbtn@math.nsc.ru

Translated into English:
   Siberian Advances in Mathematics, V. 19, N 2, 85–90 (2009).