

# Self-dual Wulff shapes and spherical convex bodies of constant width $\pi/2$

Takashi Nishimura  
Yokohama National University

A Wulff shape in  $\mathbb{R}^{n+1}$  is nothing but a convex body having the origin of  $\mathbb{R}^{n+1}$  as an interior point of it. For any Wulff shape, its dual Wulff shape is naturally defined. A self-dual Wulff shape is a Wulff shape equaling its dual Wulff shape exactly.

In this talk, I am going to show that a Wulff shape is self-dual if and only if the spherical convex body naturally induced by it is of constant width  $\pi/2$ . It should be emphasized that, thanks to Marek Lassak's interesting paper "M. Lassak, Width of spherical convex bodies, *Aequationes Math.*, **89** (2015) 555–567", we finally succeeded to break down the most difficult part of the proof.

This is a joint work with Huhe Han.