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[Title of the Invention] DISPLACEMENT ESTIMATION DEVICE, BUCKLING STRESS ESTIMATION DEVICE, DISPLACEMENT ESTIMATION METHOD, BUCKLING STRESS ESTIMATION METHOD, DISPLACEMENT ESTIMATION PROGRAM, AND BUCKLING STRESS ESTIMATION PROGRAM

A displacement estimation device estimating a first out-of-plane displacement w_w of an elastic element in a z-axis direction when an external force acts on an end surface of the elastic element formed in a flat sheet shape and the elastic element buckles in the z-axis direction, the displacement estimation device including a first displacement estimation portion that, when a line that passes through a central position of a length of the elastic element in a y-axis direction and is along the x-axis is defined as a reference line, estimates the first out-of-plane displacement w_w from Formula (1) when the first out-of-plane displacement w_w is estimated to be symmetrical in the y-axis direction with respect to the reference line and estimates the first out-of-plane displacement w_w from Formula (2) when the first out-of-plane displacement w_w is estimated to become asymmetrical in the y-axis direction with respect to the reference line.

FIG. 3