

Abstract Submitted
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Toward field measurements of tree kinematics in wind JENNIFER CARDONA, JOHN DABIRI, Stanford University — In an effort to support the quantification of tree kinematics in wind, this work explores the relationship between 2D and 3D kinematic measurements. Leaf trajectories from 3D tracking are compared to signals acquired using 2D imaging techniques in order to determine what analogous information can be attained from a single camera view. Tree branches with prescribed kinematics are first examined, followed by measurements of the motion of a tree under the influence of various wind speeds. Lab results will be used to determine the optimal combination of 2D and 3D measurements that can be used to efficiently and accurately quantify tree kinematics in the field.

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