

Supplementary Material

Towards a Method of Estimating Out-of-Plane Effects on Measurements of Turbulent Flame Dynamics

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A. Image processing for Mie-scattering

Figure S1 shows an example of the image processing routine for Mie-scattering images.

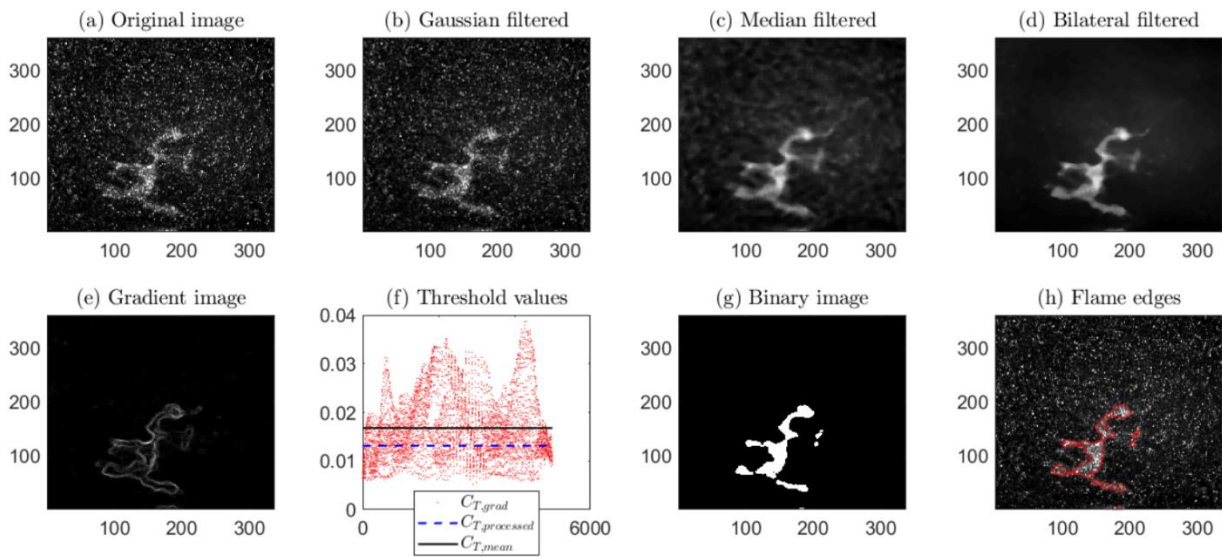


Figure S1. Process for binarizing Mie-scattering images. In all sub-figures except for (f), horizontal and vertical axes are pixel values

B. Effect of rotation on flame pockets

Figure S2 shows a histogram of angular momentum calculations assuming a rigid body motion of the two-dimensional pocket shape based on the velocity measurements from s-PIV. Results in this figure indicate that angular momentum is quite small, implying that rotational effects can be neglected.

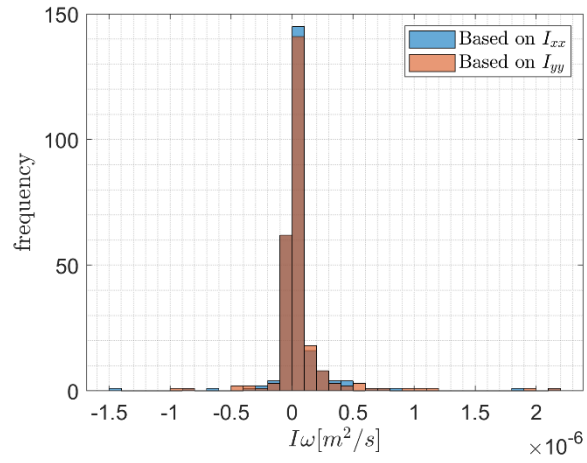


Figure S2. Angular momentum calculations of flame pockets assuming rigid body rotation.