

SpermQ - a simple analysis software to comprehensively study flagellar beating and sperm steering

Supplementary Figures

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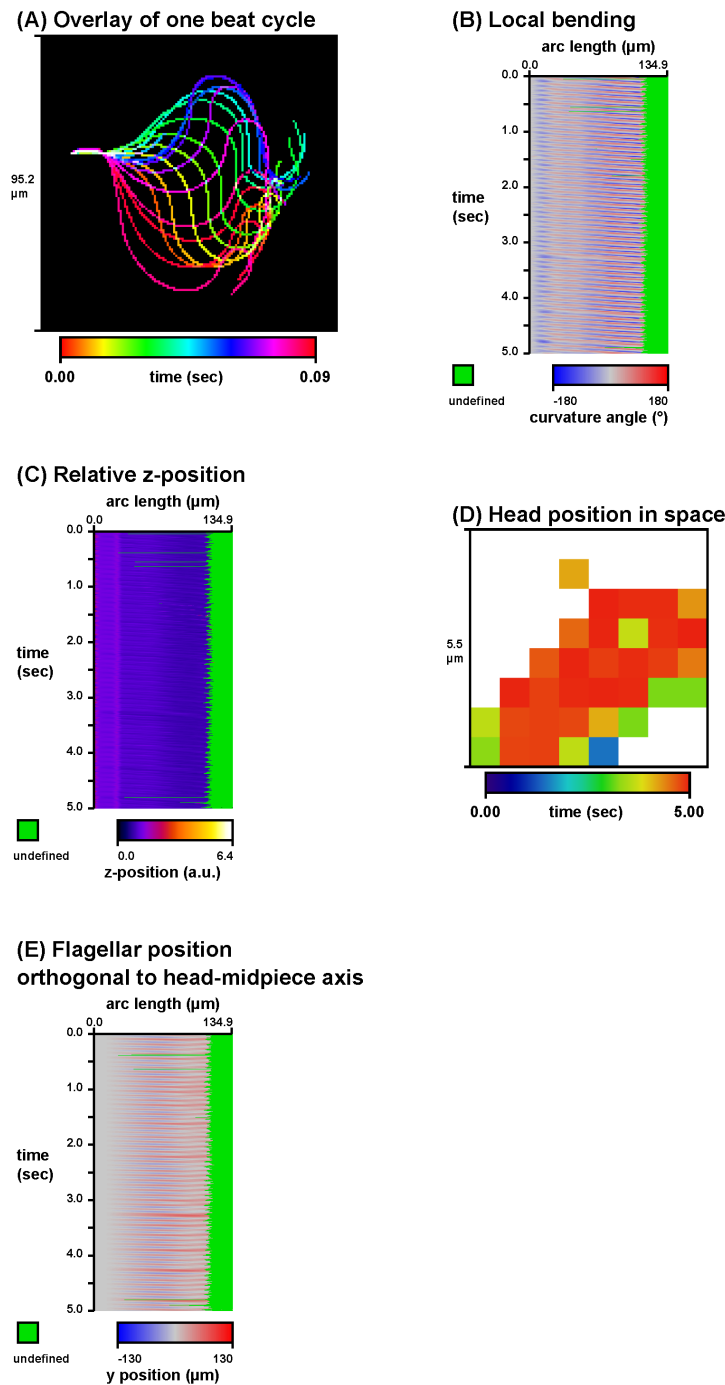
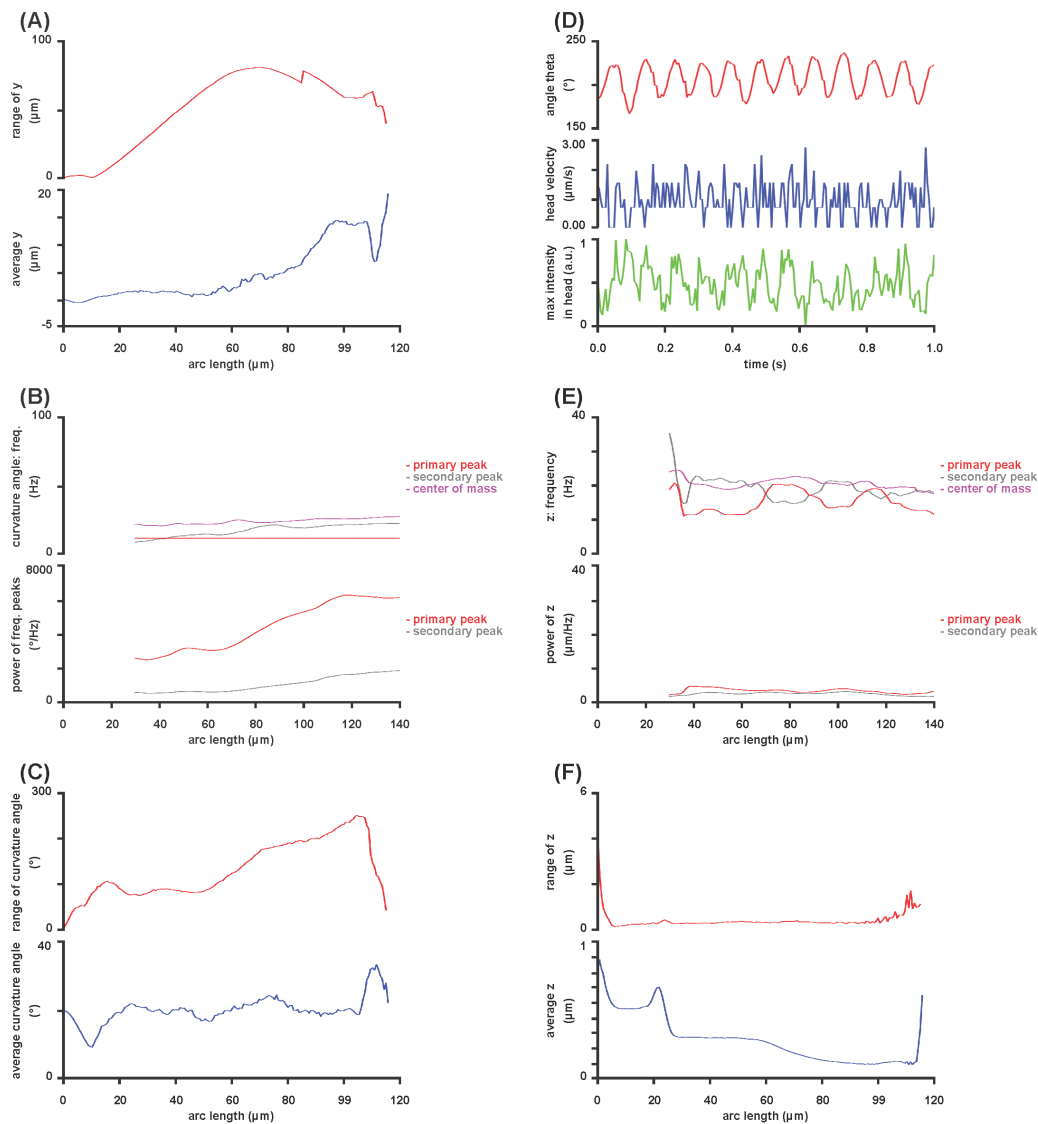


Figure S1: Exemplary output file generated by *SpermQ Evaluator* for a head-tethered mouse sperm – Page 1. For each analyzed sperm, *SpermQ Evaluator* creates a two-pages PDF with plots of the most important parameters. Page 1 of this output file contains the image name and page number on top, (A) a time-projection image of the frames belonging to the first beat cycle, (B) the kymograph of the curvature angle, (C) the kymograph of the relative z-position, (D) a time projection of the head position in space, which – if the sperm cell is freely swimming – shows the trajectory of the sperm cell, and (E) the kymograph of the y position relative to the head-midpiece axis.



This file has been created by the SpermQ_Evaluator tool using the Apache PDFBox, JFreeChart and ImageJ packages for Java. The project is available at https://github.com/WillImaging/SpermQ_Evaluator

Figure S2: Exemplary output file generated by *SpermQ Evaluator* for a head-tethered mouse sperm – Page 2. For each analyzed sperm, *SpermQ Evaluator* creates a two-pages PDF with plots of the most important parameters. Page 2 of this output file contains the image name and page number on top and plots of (A) the range and average of the y position over time, of (B) the frequency results for the parameter curvature angle, of (C) the average and range of the curvature angle over time, and of (D) the angle theta, head velocity, and the maximum intensity in the head for the first analyzed second. Head velocity and the maximum intensity in the head are indicative only for freely swimming sperm. Furthermore, the page shows plots of (E) the frequency results for the relative z position, and of (F) the average and range of the relative z position over time. All plots are further explained in a legend on the bottom of the page.