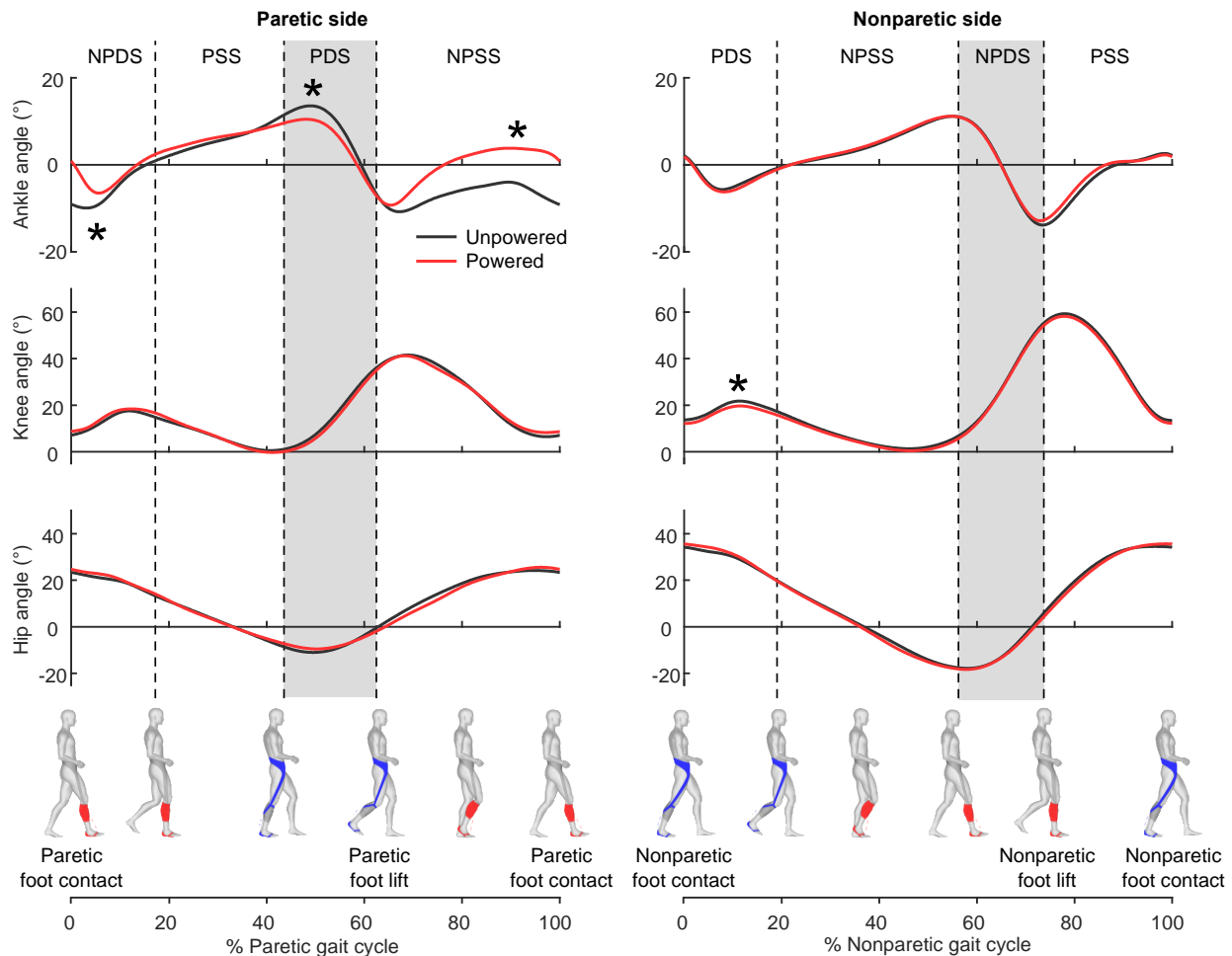
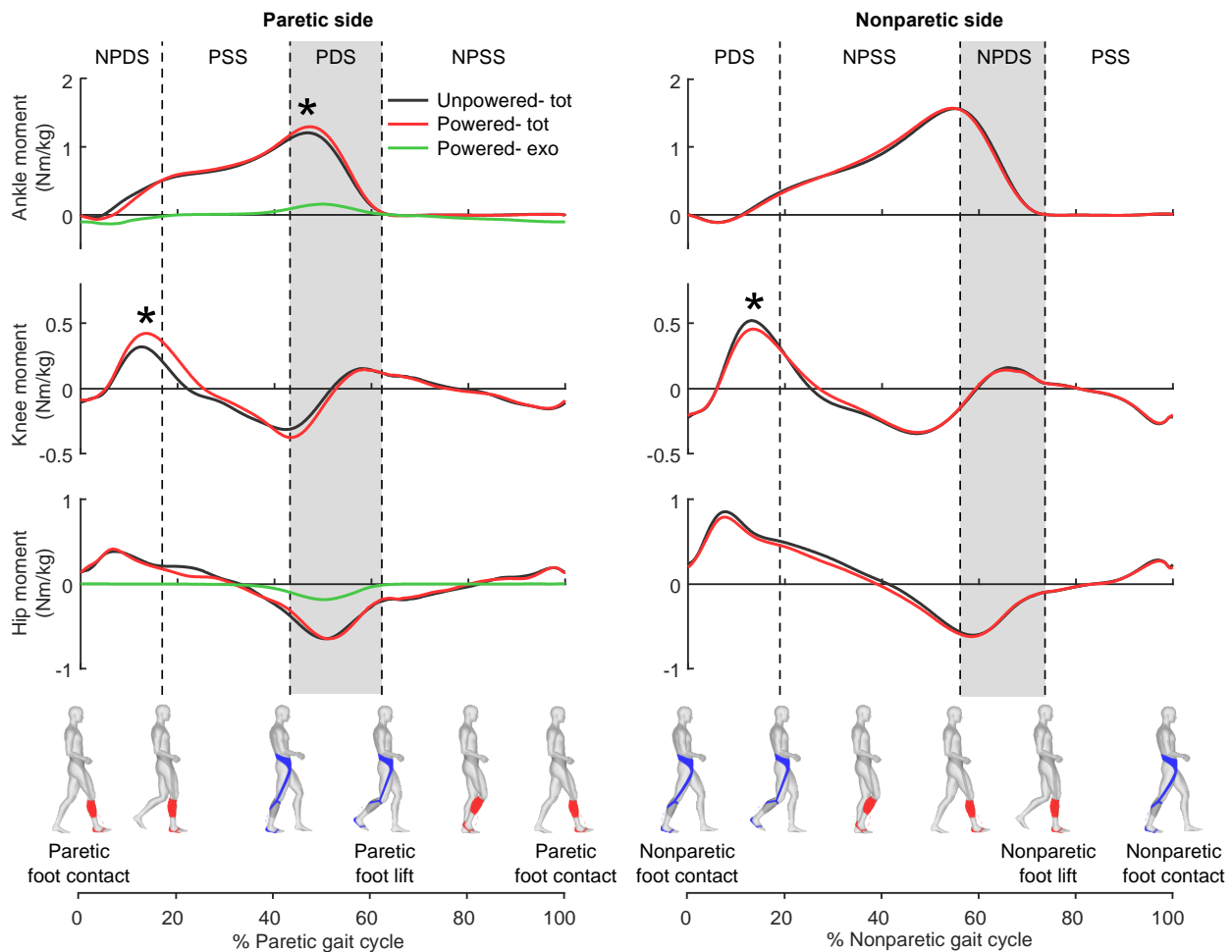


## Supplementary information



**Fig. S1.** Group average of sagittal plane joint kinematics segmented by % gait cycle for two different conditions (suit unpowered and powered) on the paretic (left) and nonparetic (right) limbs. The gait cycle was divided into four different sub-phases representing paretic and nonparetic limb double support (PDS and NPDS) and single support (PSS and NPSS). Trailing limb double support for each limb is highlighted with grey shading.

\*\* Statistically significant change in exosuit-assisted walking was denoted as \*. For simplicity in presentation, statistical significance was presented only at the local peak of the trajectory.



**Fig. S2.** Group average of sagittal plane joint moments segmented by % gait cycle for two different conditions (suit unpowered and powered) on the paretic (left) and nonparetic (right) limbs. The gait cycle was divided into four different sub-phases representing paretic and nonparetic limb double support (PDS and NPDS) and single support (PSS and NPSS). Trailing limb double support for each limb is highlighted with grey shading.

\*\* Statistically significant change in exosuit-assisted walking was denoted as \*. For simplicity in presentation, statistical significance was presented only at the local peak of the trajectory.

\*\* Abbreviations: tot- Total power generated by human and exosuit. exo- Ankle and hip power generated by exosuit when suit powered.