

SUPPLEMENTAL MATERIAL
Normalized Movement Quality Measures for Therapeutic Robots
Strongly Correlate with Clinical Motor Impairment Measures
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The trends that the robotic measures smoothness of movement (SM), trajectory error (TE), average number of hits per minute (HPM) and mean tangential speed (MTS) followed for all nine patients are depicted in Figs. 1, 2, 3, 4 below. Day 1 corresponds to the first therapy day. p 's are the p values of linear regressions and a p value less than 0.05 designates a significant slope for the linear regression.

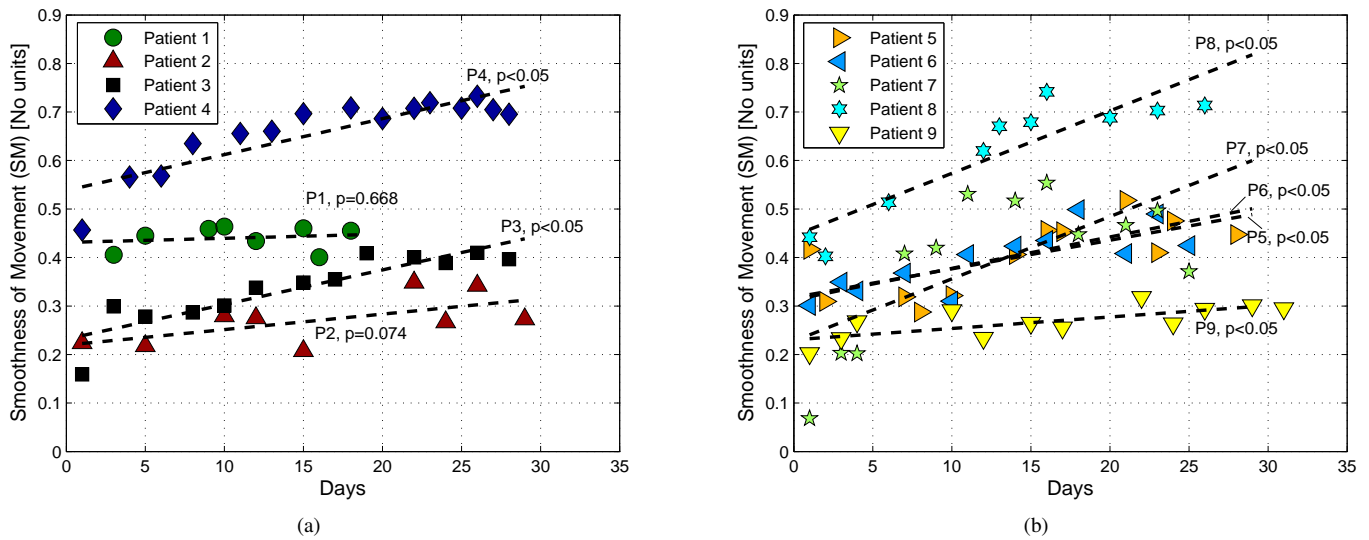


Fig. 1. Daily average smoothness of movement (SM) scores of Patients 1–4 (a) and Patients 5–9 (b).

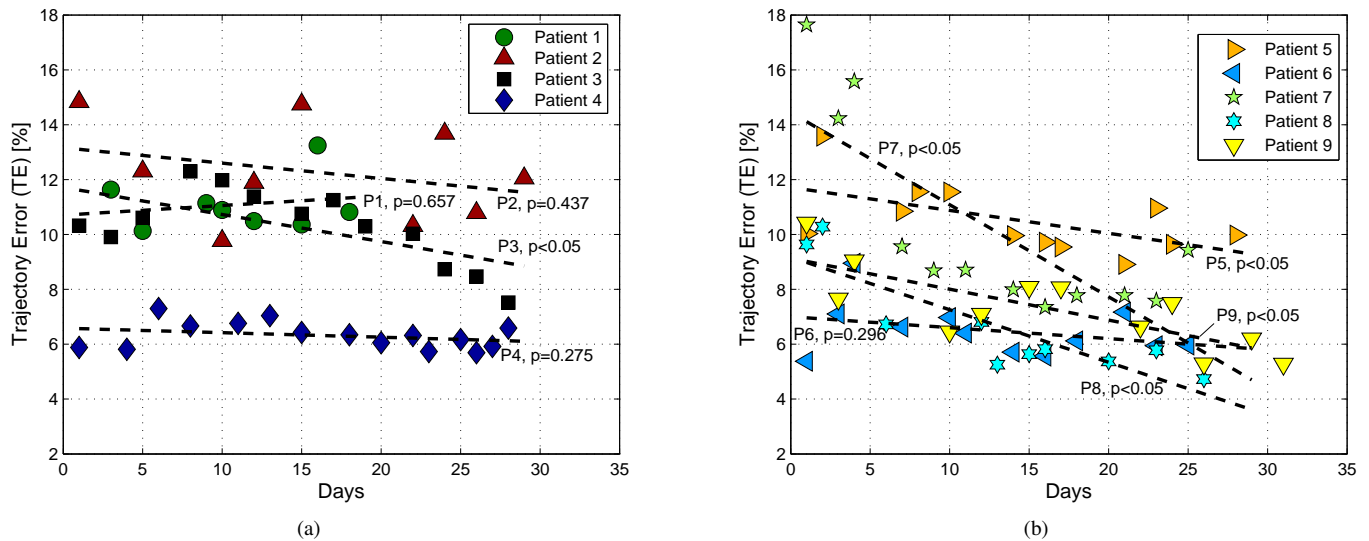


Fig. 2. Daily average trajectory error (TE) scores of Patients 1–4 (a) and Patients 5–9 (b).

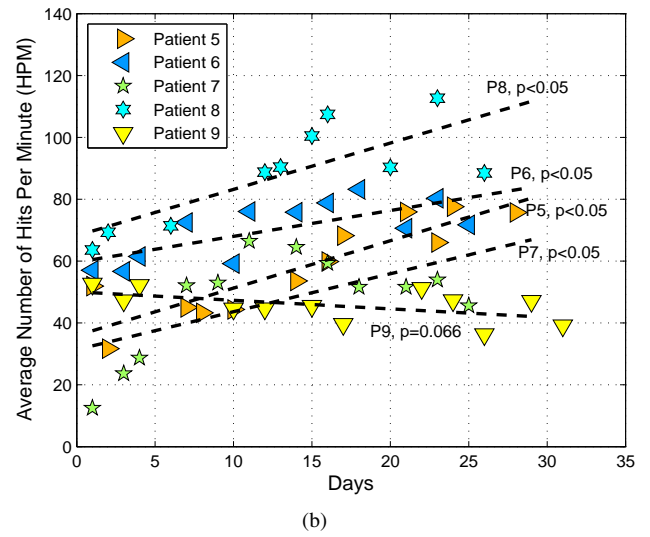
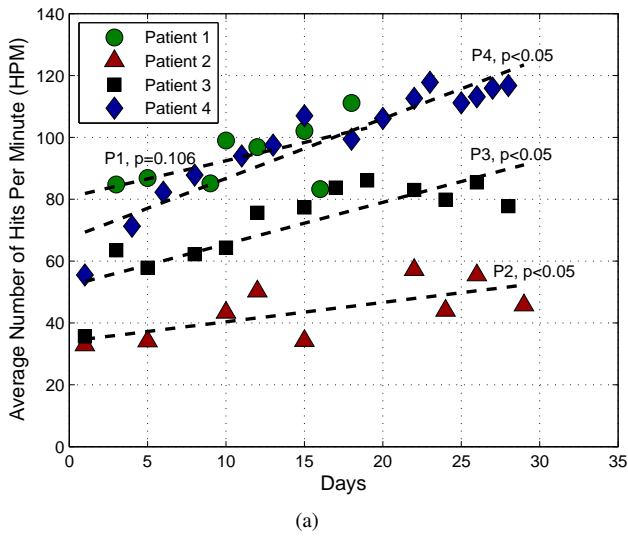


Fig. 3. Daily average number of hits per minute (HPM) scores of Patients 1–4 (a) and Patients 5–9 (b).

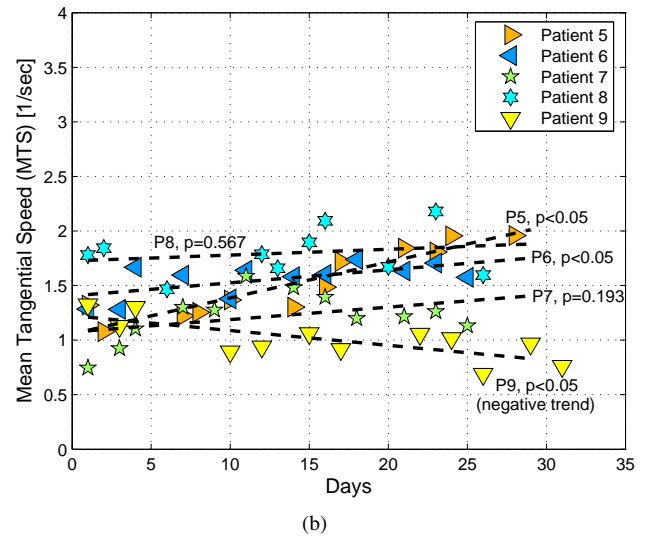
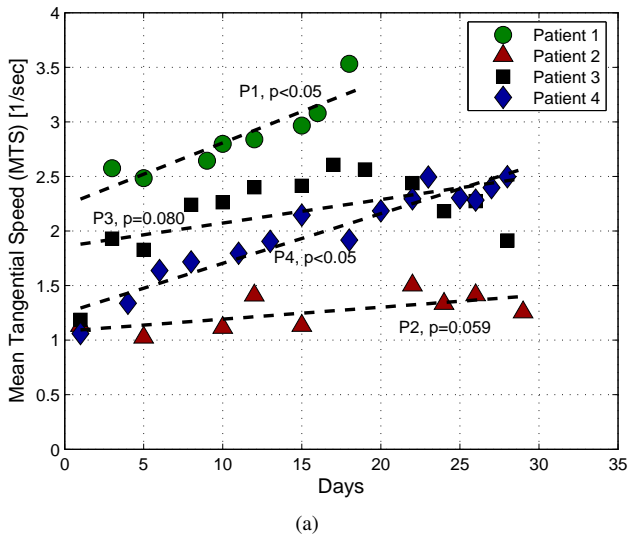


Fig. 4. Daily average number of mean tangential speed (MTS) scores of Patients 1–4 (a) and Patients 5–9 (b).