

TABLE I: Subject 1 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.987	0.987	0.965	0.957	0.974 ± 0.015	0.869	0.897	0.962	0.937	0.916 ± 0.042
RMSE	7.87	7.73	3.64	3.81	5.76 ± 2.35	8.16	7.82	6.09	6.21	7.07 ± 1.07

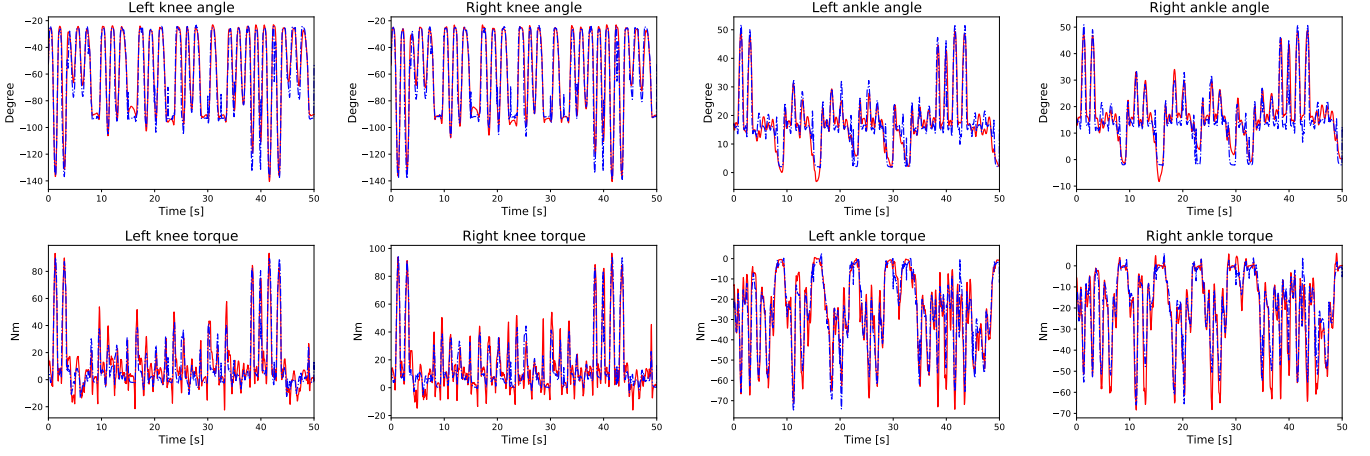


Fig. 1: Subject 1 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE II: Subject 2 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.957	0.950	0.659	0.626	0.798 ± 0.180	0.710	0.654	0.703	0.575	0.661 ± 0.062
RMSE	12.43	13.16	7.54	7.22	10.09 ± 3.14	13.28	15.97	10.68	9.28	12.3 ± 2.95

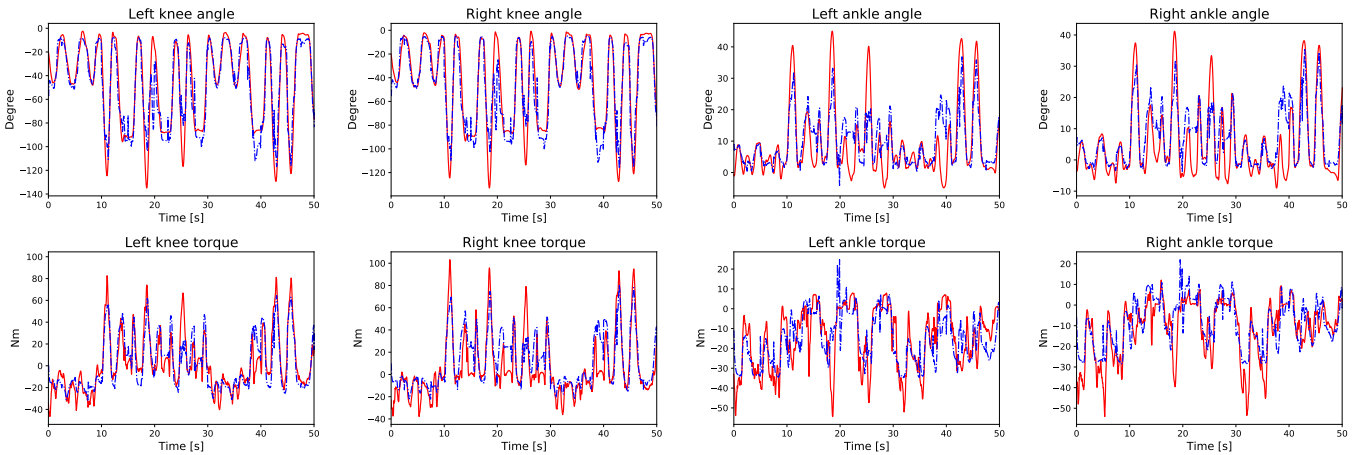


Fig. 2: Subject 2 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE III: Subject 3 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.979	0.981	0.911	0.943	0.954 ± 0.033	0.957	0.940	0.941	0.952	0.948 ± 0.008
RMSE	6.97	6.96	3.48	3.47	5.22 ± 2.01	5.94	6.10	4.41	4.63	5.27 ± 0.87

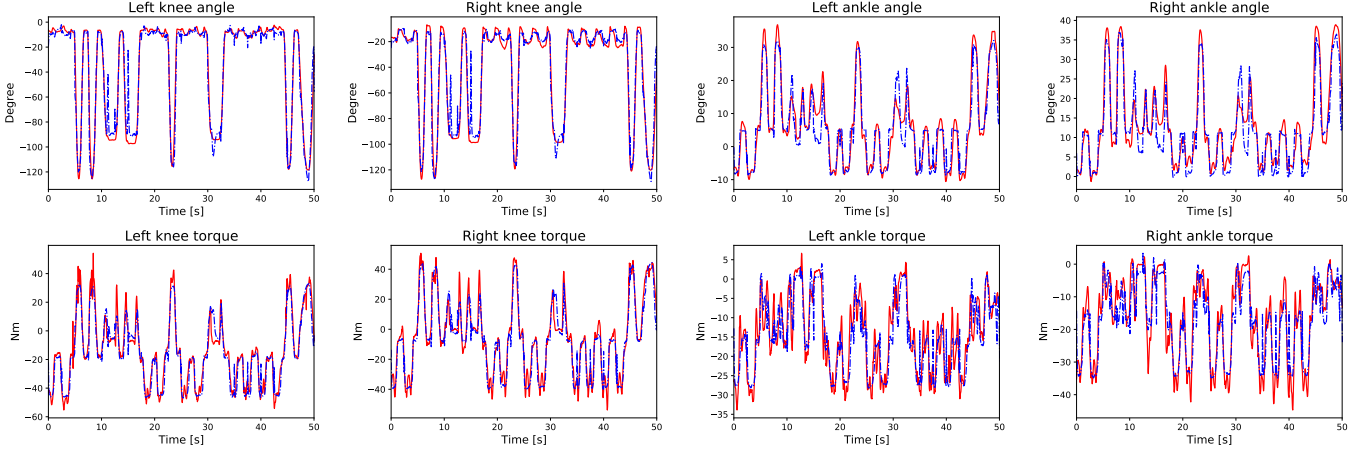


Fig. 3: Subject 3 personalized model test set estimations against measurements, "—" for measurements and "-.-.-" for predictions.

TABLE IV: Subject 4 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.953	0.966	0.926	0.963	0.952 ± 0.018	0.940	0.937	0.955	0.926	0.940 ± 0.012
RMSE	11.86	10.41	4.82	4.22	7.83 ± 3.87	5.41	6.16	4.35	6.74	5.67 ± 1.03

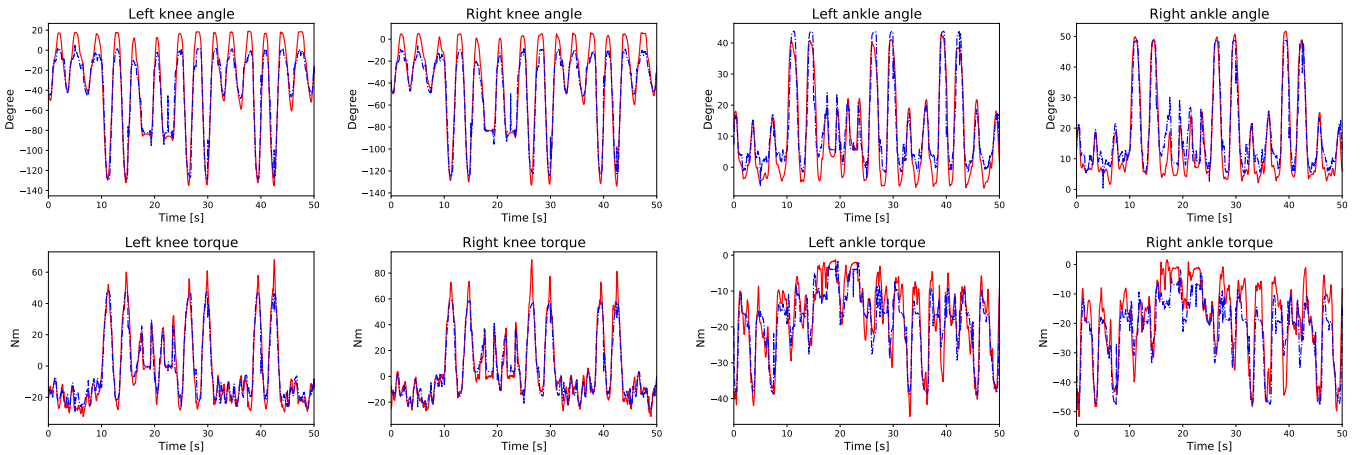


Fig. 4: Subject 4 personalized model test set estimations against measurements, "—" for measurements and "-.-.-" for predictions.

TABLE V: Subject 5 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.992	0.992	0.975	0.968	0.982 ± 0.012	0.951	0.941	0.907	0.905	0.926 ± 0.023
RMSE	6.40	6.82	2.80	2.95	4.74 ± 2.16	5.93	5.78	11.19	9.12	8.01 ± 2.62

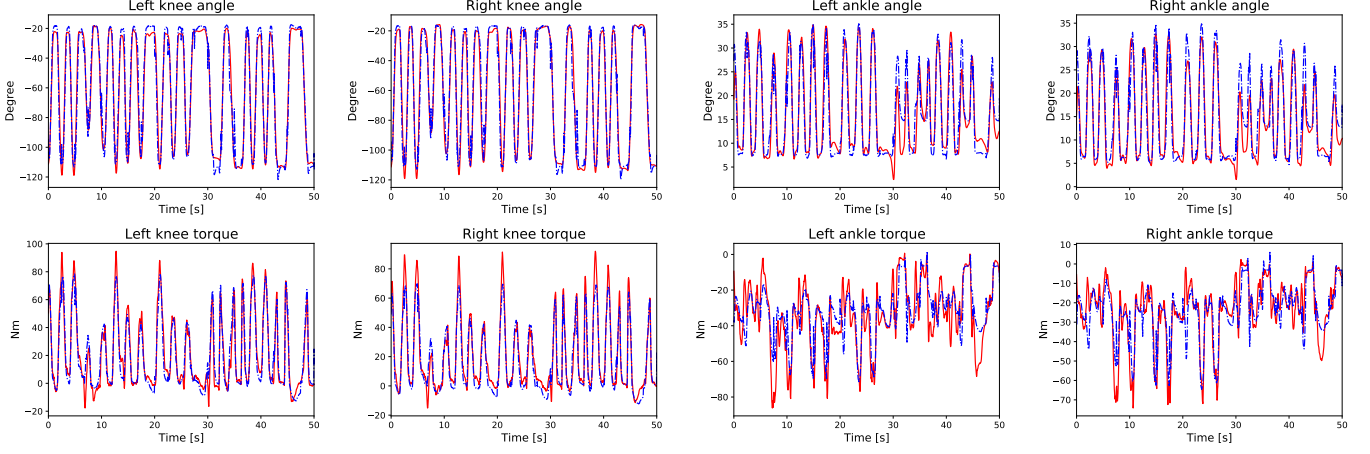


Fig. 5: Subject 5 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE VI: Subject 6 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.968	0.973	0.954	0.956	0.963 ± 0.009	0.775	0.769	0.900	0.890	0.834 ± 0.071
RMSE	12.14	11.73	5.18	5.39	8.61 ± 3.84	11.17	12.14	8.55	8.58	10.11 ± 1.83

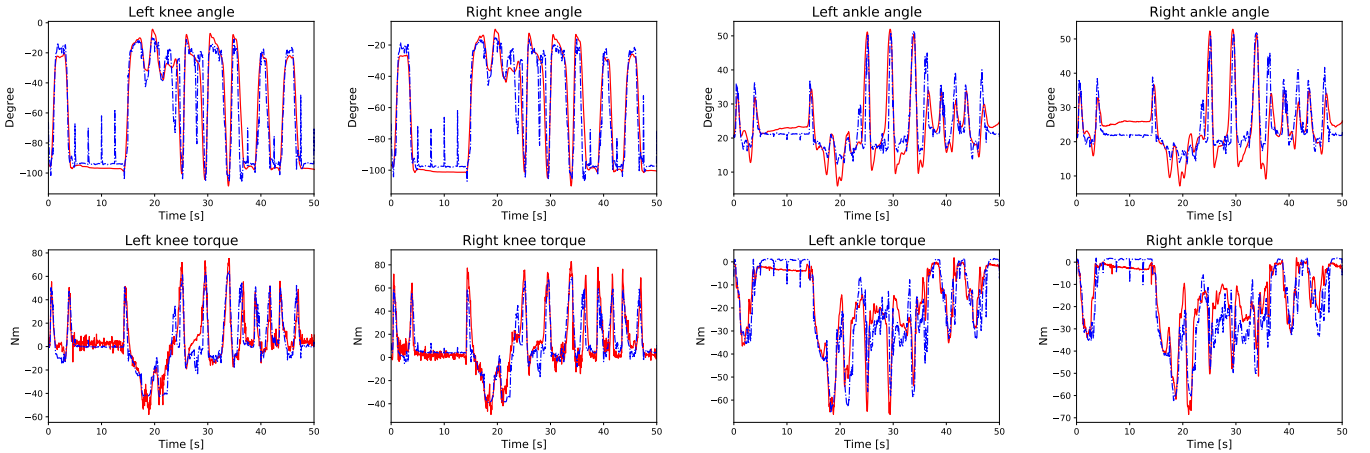


Fig. 6: Subject 6 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE VII: Subject 7 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.959	0.962	0.911	0.908	0.935 ± 0.029	0.932	0.921	0.931	0.869	0.913 ± 0.030
RMSE	9.71	9.60	5.69	5.32	7.58 ± 2.40	10.61	10.59	9.05	9.44	9.92 ± 0.80

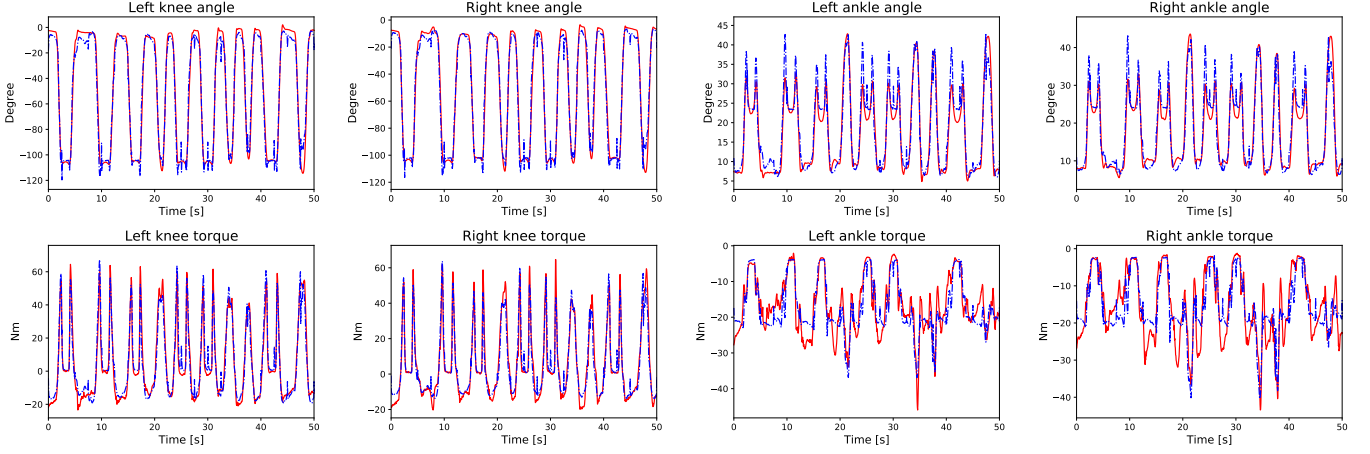


Fig. 7: Subject 7 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE VIII: Subject 8 personalized model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.991	0.993	0.983	0.982	0.987 ± 0.006	0.945	0.932	0.959	0.931	0.942 ± 0.013
RMSE	6.01	5.48	2.82	2.83	4.29 ± 1.70	5.61	5.47	3.9	4.63	4.90 ± 0.80

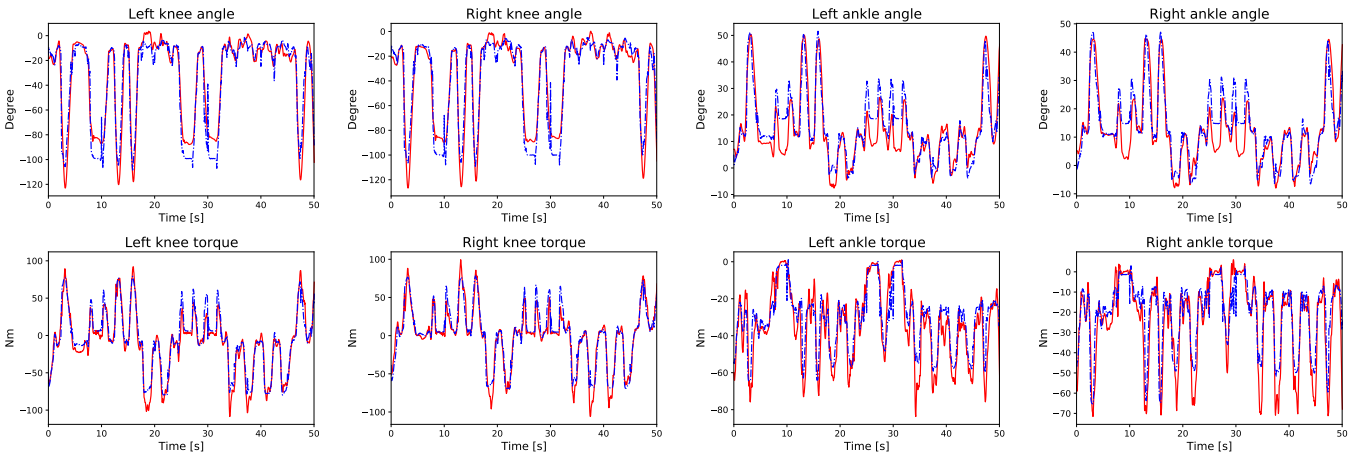


Fig. 8: Subject 8 personalized model test set estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE IX: Subject 1 general model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.938	0.941	0.763	0.596	0.810 ± 0.165	0.548	0.640	0.886	0.865	0.735 ± 0.167
RMSE	19.37	18.86	10.34	10.88	14.86 ± 4.92	20.29	22.08	13.13	11.46	16.74 ± 5.23

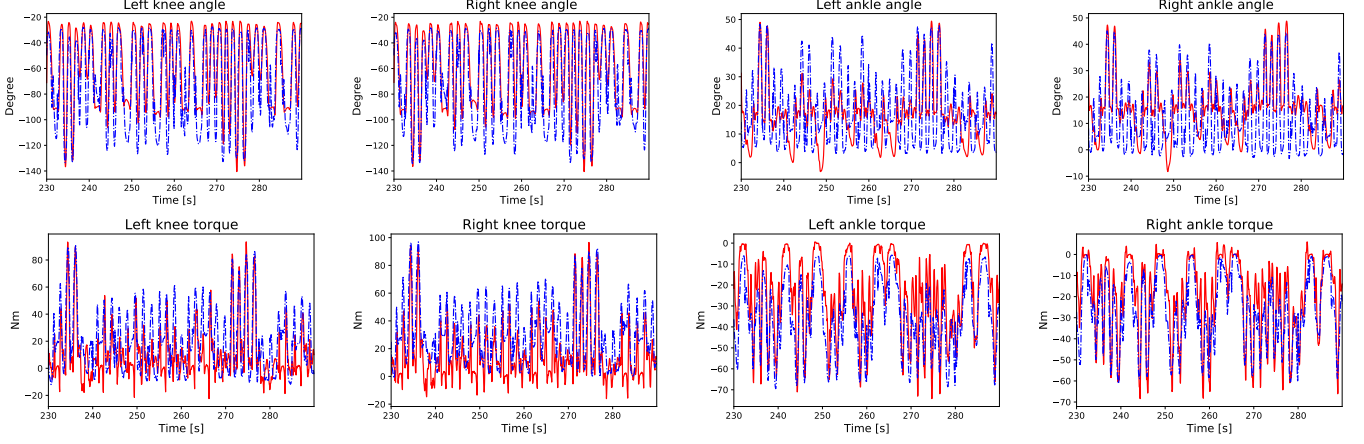


Fig. 9: Subject 1 general model estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE X: Subject 4 general model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.824	0.876	0.739	0.876	0.829 ± 0.065	0.772	0.832	0.922	0.897	0.856 ± 0.067
RMSE	22.87	19.86	7.29	7.53	14.39 ± 8.15	8.89	9.47	5.41	6.83	7.65 ± 1.87

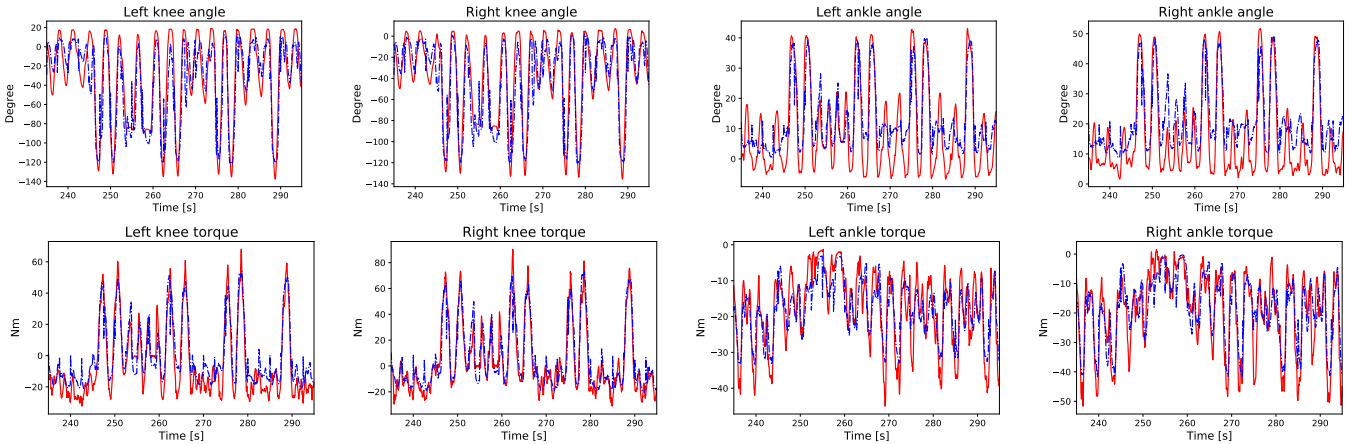


Fig. 10: Subject 4 general model estimations against measurements, "—" for measurements and "-.-" for predictions.

TABLE XI: Subject 5 general model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.9396	0.9328	0.9402	0.9098	0.931\pm0.014	0.8276	0.8129	0.8967	0.8345	0.843\pm0.037
RMSE	15.83	16.37	4.74	5.7	10.66\pm6.3	15.23	15.44	13.21	14.49	14.59\pm1.01

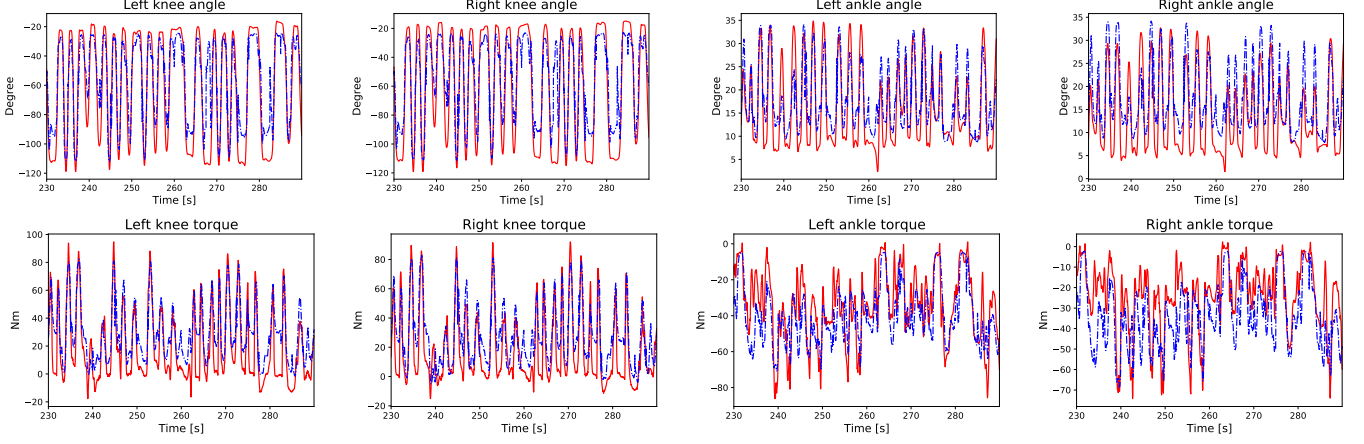


Fig. 11: Subject 5 general model estimations against measurements, "—" for measurements and "- - -" for predictions.

TABLE XII: Subject 8 general model results

Evaluation metrics	Angle					Torque				
	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.	Left knee	Right knee	Left ankle	Right ankle	mean \pm Std.
R^2	0.9097	0.9263	0.9213	0.9073	0.916\pm0.009	0.7882	0.7984	0.7916	0.9375	0.829\pm0.073
RMSE	16.79	15.58	5.77	6.17	11.08\pm5.92	10.55	9.03	7.22	5.81	8.15\pm2.07

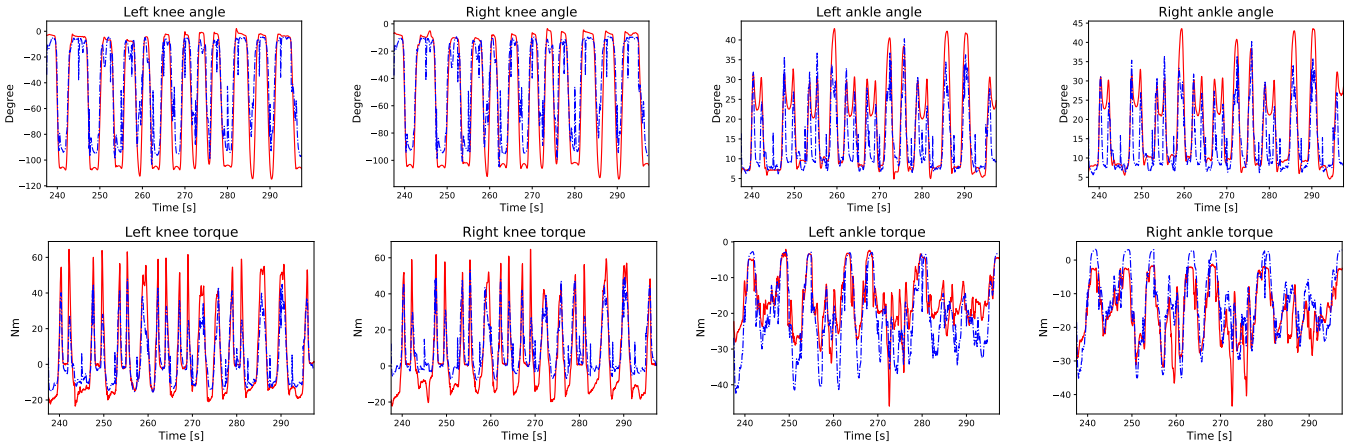


Fig. 12: Subject 8 general model estimations against measurements, "—" for measurements and "- - -" for predictions.