

Table 2: Correlations between shape features and the standard deviation of distance, height, and velocity parameters of the hand and the fingers. Asterisks indicate the significance against zero. * marks a significant correlation on level $p < 0.05$, ** show a significant correlation on a level of $p < 0.01$ and *** mark a significant correlation on a level of $p < 0.001$. N is the number of value pairs which are included in the calculation.

Shape features	Distance between Fingertips																	
	r			p			N			Fingertip Height			Hand Velocity			Fingertip Velocity		
	r	p	N	r	p	N	r	p	N	r	p	N	r	p	N	r	p	N
	Learn Phase																	
Volume	-.40***	.001	71	.31**	.010	71	.19	.120	71	.25*	.039	70	.36**	.002	70			
Number of vertices	.32**	.006	71	.15	.223	71	.22	.068	71	.14	.256	70	.28	.020	70			
Number of edges	.20	.098	71	-.09	.451	71	.07	.579	71	-.12	.314	70	.09	.453	70			
Mean curvature	.12	.331	71	.29*	.014	71	.21	.073	71	.50***	.000	70	.38**	.001	70			
Mean shape height	.53***	.000	71	.45***	.000	71	.21	.085	71	.32**	.008	70	.50***	.000	70			
Curved area	.14	.239	71	-.18	.136	71	-.09	.464	71	-.39***	.001	70	-.08	.494	70			
Surface area	.16	.191	71	-.18	.129	71	-.03	.809	71	-.33**	.005	70	-.05	.676	70			
Edge length	.21	.081	71	-.11	.364	71	.06	.616	71	-.20	.093	70	.05	.657	70			
Complexity	.13	.285	71	-.21	.073	71	-.08	.516	71	-.39***	.001	70	-.10	.420	70			
STD shape height	-.15	.206	71	-.36**	.002	71	-.11	.353	71	-.42***	.000	70	-.36**	.002	70			
Shape width	-.04	.729	71	-.31**	.008	71	-.06	.633	71	-.34**	.004	70	-.21	.076	70			
Shape radius	.01	.932	71	-.30*	.011	71	-.12	.303	71	-.46***	.000	70	-.25*	.041	70			
	Search Phase																	
Volume	.09	.466	72	.12	.314	72	.26*	.030	72	.28*	.020	71	.32**	.007	71			
Number of vertices	.11	.376	72	-.01	.943	72	.18	.142	72	.16	.180	71	.18	.132	71			
Number of edges	.14	.235	72	-.13	.278	72	.01	.913	72	-.08	.485	71	-.04	.720	71			
Mean curvature	.17	.156	72	.20	.101	72	.07	.569	72	.39***	.001	71	.49***	.000	71			
Mean shape height	.14	.260	72	.23	.054	72	.24*	.043	72	.35**	.003	71	.52***	.000	71			
Curved area	.03	.828	72	-.15	.209	72	-.05	.699	72	-.29*	.013	71	-.27*	.024	71			
Surface area	.07	.578	72	-.18	.124	72	-.04	.723	72	-.25*	.033	71	-.22	.062	71			
Edge length	.11	.372	72	-.15	.196	72	.00	.974	72	-.14	.234	71	-.10	.388	71			
Complexity	.06	.622	72	-.19	.116	72	-.07	.547	72	-.30*	.011	71	-.26*	.032	71			
STD shape height	-.12	.336	72	-.28*	.019	72	-.10	.385	72	-.35**	.003	71	-.49***	.000	71			
Shape width	-.02	.858	72	-.23	.052	72	-.08	.495	72	-.27*	.022	71	-.35**	.003	71			
Shape radius	-.06	.612	72	-.23	.056	72	-.08	.509	72	-.35**	.002	71	-.42***	.000	71			

Table 3: Correlations between shape features and mean pressure parameters. Asterisks indicate the significance against zero. * marks a significant correlation on level $p < 0.05$, ** show a significant correlation on a level of $p < 0.01$ and *** mark a significant correlation on a level of $p < 0.001$. N is the number of value pairs which are included in the calculation.

Shape features	Pressure Thumb		Pressure Index		Pressure Middle		Pressure Ring		Pressure Baby				
	r	N	r	N	r	N	r	N	r	N			
Learn Phase													
Volume	-03	.834	.04	.781	-014	.271	67	-014	.246	67	.01	.942	67
Number of vertices	.01	.917	-011	.396	-005	.670	67	-011	.357	67	.09	.454	67
Number of edges	.04	.776	-017	.168	.00	.992	67	-005	.707	67	.13	.306	67
Mean curvature	.29*	.030	.15	.234	.16	.193	67	.03	.822	67	-012	.335	67
Mean shape height	-01	.972	.23	.066	-007	.597	67	-002	.874	67	.02	.863	67
Curved area	-08	.561	-007	.572	-002	.895	67	-001	.930	67	.19	.118	67
Surface area	-02	.883	-014	.252	.00	.988	67	.02	.906	67	.19	.120	67
Edge length	.02	.867	-016	.208	.03	.826	67	-003	.842	67	.17	.159	67
Complexity	-06	.660	-013	.279	-001	.912	67	.03	.803	67	.18	.136	67
STD shape height	-23	.087	-033**	.006	-016	.201	67	.04	.728	67	.18	.152	67
Shape width	-25	.062	-032**	.008	-015	.227	67	-002	.856	67	.19	.126	67
Shape radius	-25	.059	-023	.063	-016	.191	67	.02	.889	67	.23	.064	67
Search Phase													
Volume	-07	.605	-023	.067	.17	.167	68	-017	.161	68	-005	.679	67
Number of vertices	.03	.795	-028*	.023	.10	.422	68	-016	.202	68	.01	.909	67
Number of edges	.05	.707	-012	.340	.03	.792	68	-012	.320	68	.16	.198	67
Mean curvature	.47***	.000	.05	.687	.31**	.010	68	.12	.347	68	-012	.343	67
Mean shape height	.04	.764	-016	.197	.27*	.026	68	.02	.900	68	.04	.733	67
Curved area	-016	.218	-004	.728	-007	.564	68	-008	.564	68	.30*	.013	67
Surface area	-04	.774	-010	.433	-008	.513	68	-007	.557	68	.28*	.020	67
Edge length	.03	.827	-015	.230	-002	.897	68	-010	.423	68	.22	.070	67
Complexity	-09	.489	-005	.704	-010	.428	68	-006	.654	68	.29*	.018	67
STD shape height	-24	.057	-017	.171	-034**	.004	68	-006	.628	68	.09	.487	67
Shape width	-26*	.041	-015	.218	-019	.132	68	-010	.415	68	.08	.539	67
Shape radius	-31*	.016	-013	.282	-023	.063	68	-008	.540	68	.21	.090	67

Table 4: Correlations between shape features and the standard deviation of pressure parameters. Asterisks indicate the significance against zero. * marks a significant correlation on level $p < 0.05$, ** show a significant correlation on a level of $p < 0.01$ and *** mark a significant correlation on a level of $p < 0.001$. N is the number of value pairs which are included in the calculation.

Shape features	Pressure Thumb		Pressure Index		Pressure Middle		Pressure Ring		Pressure Baby						
	r	N	r	N	r	N	r	N	r	N					
Learn Phase															
Volume	-.01	.962	.08	56	.501	67	-.13	.283	67	.847	67	.10	.408	67	
Number of vertices	.06	.660	-.03	56	.828	67	-.02	.863	67	.16	.191	67	.09	.455	67
Number of edges	.08	.540	-.11	56	.398	67	.09	.473	67	.16	.198	67	.07	.565	67
Mean curvature	.29*	.029	.00	56	.986	67	.04	.739	67	.24	.052	67	-.15	.227	67
Mean shape height	.02	.866	.22	56	.079	67	-.11	.398	67	.05	.686	67	.08	.506	67
Curved area	-.05	.731	.02	56	.886	67	.10	.411	67	-.03	.814	67	.14	.277	67
Surface area	.02	.859	-.05	56	.662	67	.13	.303	67	.09	.477	67	.13	.304	67
Edge length	.07	.594	-.07	56	.580	67	.12	.319	67	.16	.206	67	.10	.409	67
Complexity	-.02	.872	-.05	56	.697	67	.12	.349	67	.04	.734	67	.12	.332	67
STD shape height	-.20	.140	-.19	56	.121	67	-.01	.962	67	-.01	.959	67	.13	.294	67
Shape width	-.21	.117	-.19	56	.126	67	-.02	.877	67	.01	.910	67	.09	.459	67
Shape radius	-.22	.112	-.09	56	.460	67	.00	.993	67	-.06	.620	67	.16	.187	67
Search Phase															
Volume	-.06	.657	-.26*	62	.033	67	.16	.189	68	-.10	.409	68	-.11	.374	66
Number of vertices	.02	.855	-.27*	62	.028	67	.11	.361	68	-.07	.593	68	-.02	.849	66
Number of edges	-.02	.865	-.05	62	.713	67	.07	.559	68	-.04	.770	68	.14	.258	66
Mean curvature	.50***	.000	-.01	62	.925	67	.27*	.024	68	.23	.055	68	-.05	.719	66
Mean shape height	-.00	.982	-.23	62	.058	67	.20	.102	68	-.03	.814	68	-.06	.648	66
Curved area	-.25*	.047	.07	62	.592	67	-.05	.663	68	-.11	.356	67	.22	.079	61
Surface area	-.13	.311	.02	62	.893	67	-.05	.683	68	-.08	.530	68	.23	.062	66
Edge length	-.05	.681	-.06	62	.648	67	.02	.894	68	-.06	.643	68	.18	.155	66
Complexity	-.19	.131	.06	62	.641	67	-.07	.577	68	-.09	.483	68	.23	.059	66
STD shape height	-.26*	.043	-.10	62	.433	67	-.30*	.014	68	-.13	.275	68	.10	.435	66
Shape width	-.30*	.018	-.12	62	.355	67	-.15	.238	68	-.12	.330	68	.07	.576	66
Shape radius	-.37**	.003	-.05	62	.686	67	-.20	.098	68	-.16	.194	68	.16	.201	66