

Interactive Exploration of Drapes by Simulation Parameters

- Results of User Study -

Ten experts with experience in parameter tuning participated in the user study. We asked them to use our UI to perform parameter tuning tasks. For each task, we provided photographs of the drape of the target fabric, taken from three different angles. We also provided the initial values of the parameters obtained from the measuring device designed for CLO3D 5.1.

The target photographs and the initial parameter values of each task are presented at the top of each following page. All the parameters and drapes chosen by ten participants are also presented on each pages. Table 1 lists the units of each parameter.

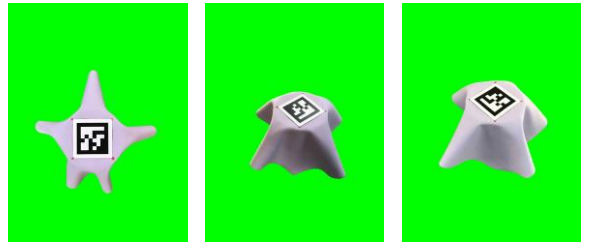
Table 1 Parameters

Symbol	parameter	Unit
SU	Stretch-Weft, Stiffness	$\ln(g \cdot mm^2)$
SV	Stretch-Warp, Stiffness	$\ln(g \cdot mm^2)$
SH	Shear, Stiffness	$\ln(g \cdot mm^2)$
BU	Bending-Weft, Stiffness	$\ln(g \cdot mm^2 \cdot s^{-1} \cdot rad^{-1})$
BV	Bending-Warp, Stiffness	$\ln(g \cdot mm^2 \cdot s^{-1} \cdot rad^{-1})$
BD	Bending-Bias, Stiffness	$\ln(g \cdot mm^2 \cdot s^{-1} \cdot rad^{-1})$
D	Density	$g \cdot m^{-2}$

Task 1

Fabric Type	Double Knit/Interlock					
Composition	Cotton(39%), Lyocell(7%), Polyester(51%), Polyurethane(3%)					
Initial parameters						
SU	SV	SH	BU	BV	BD	D
11.28	11.94	10.42	5.16	3.39	5.95	214.14

Target photos



1



SU	SV	SH	BU	BV	BD	D
11.31	11.90	10.42	6.29	7.59	6.39	214.14

2



SU	SV	SH	BU	BV	BD	D
10.76	11.93	9.31	7.24	7.39	6.09	214.14

3



SU	SV	SH	BU	BV	BD	D
11.28	11.90	10.42	4.89	8.04	6.39	214.14

4



SU	SV	SH	BU	BV	BD	D
11.91	11.88	10.01	6.29	7.52	7.08	214.14

5



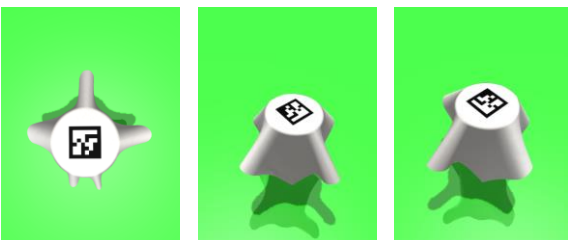
SU	SV	SH	BU	BV	BD	D
11.28	11.90	10.42	5.29	7.79	6.49	214.14

6



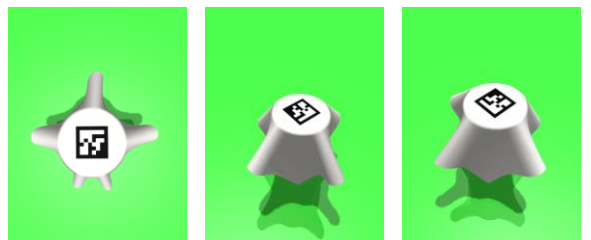
SU	SV	SH	BU	BV	BD	D
11.28	11.90	10.42	5.94	7.79	6.49	214.14

7



SU	SV	SH	BU	BV	BD	D
9.81	11.28	9.96	3.54	7.54	7.39	214.14

8



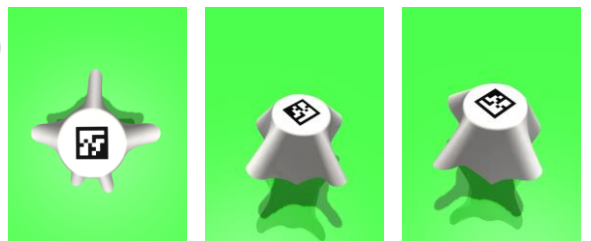
SU	SV	SH	BU	BV	BD	D
11.91	11.98	10.66	6.54	7.59	6.39	214.14

9



SU	SV	SH	BU	BV	BD	D
10.86	10.38	10.31	4.59	6.84	6.89	214.14

10



SU	SV	SH	BU	BV	BD	D
10.46	11.43	8.91	6.49	7.79	6.64	214.14

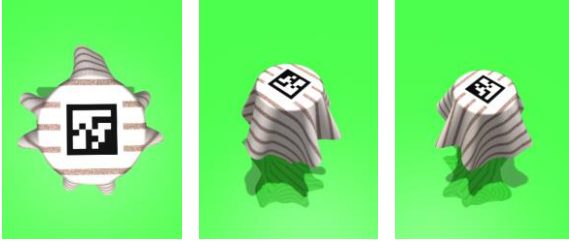
Task 2

Fabric Type	Double Knit/Interlock					
Composition	Polyester(83%), Nylon(5%), Metallic(12%)					
Initial parameters						
SU	SV	SH	BU	BV	BD	D
11.80	12.57	10.95	5.96	5.65	5.82	175.76

Target photos

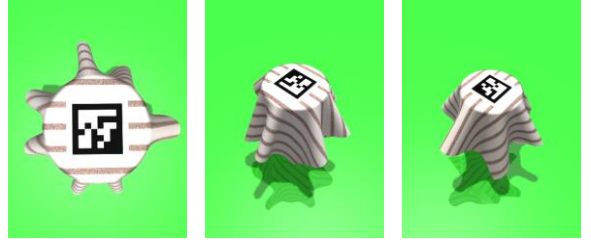


1



SU	SV	SH	BU	BV	BD	D
11.81	12.78	11.21	6.29	4.94	5.84	175.76

2



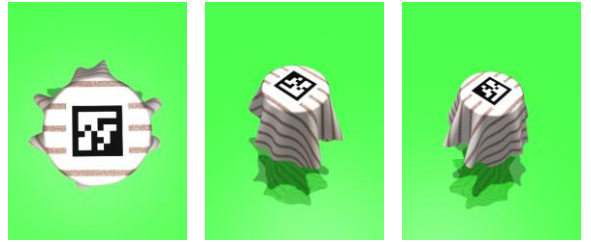
SU	SV	SH	BU	BV	BD	D
11.66	12.23	10.96	4.94	6.34	6.04	175.76

3



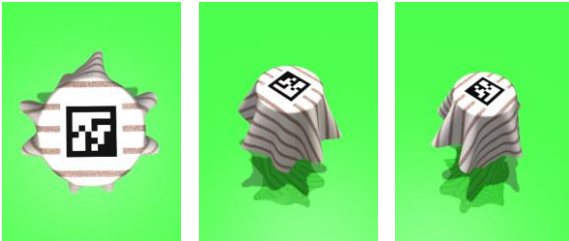
SU	SV	SH	BU	BV	BD	D
11.80	12.57	10.95	5.64	6.14	5.74	175.76

4



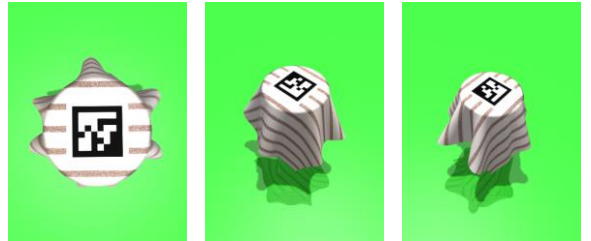
SU	SV	SH	BU	BV	BD	D
10.61	11.63	10.46	5.14	4.78	5.53	175.76

5



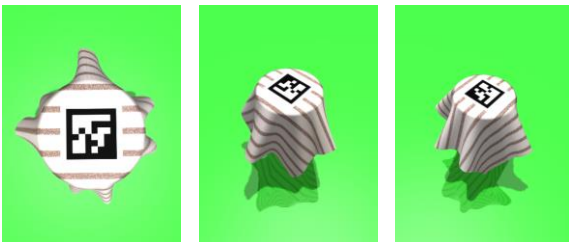
SU	SV	SH	BU	BV	BD	D
11.51	12.58	10.66	5.64	6.09	5.69	175.76

6



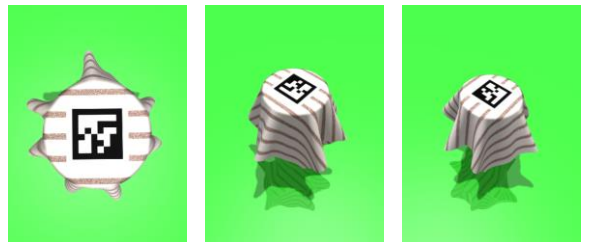
SU	SV	SH	BU	BV	BD	D
9.86	12.28	10.41	5.69	6.79	4.29	175.76

7



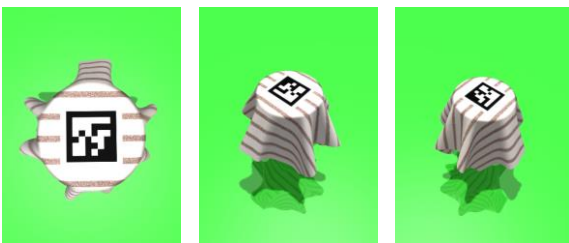
SU	SV	SH	BU	BV	BD	D
11.26	11.93	11.26	6.84	6.84	5.24	175.76

8



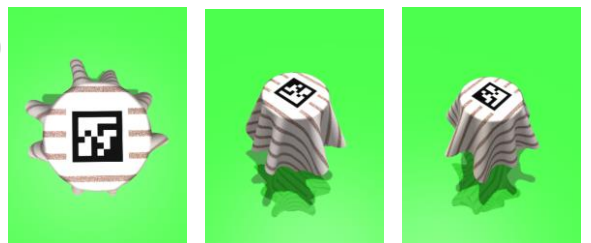
SU	SV	SH	BU	BV	BD	D
12.06	13.43	11.56	6.19	4.24	4.99	175.76

9



SU	SV	SH	BU	BV	BD	D
11.31	11.68	12.36	5.79	4.84	5.19	175.76

10



SU	SV	SH	BU	BV	BD	D
11.41	11.18	9.31	4.99	5.84	5.84	175.76

Task 3

Fabric Type	Dobby/Jacquard					
Composition	Polyester(92%), Polyurethane(8%)					
Initial parameters						
SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	7.78	7.03	7.47	343.94

Target photos

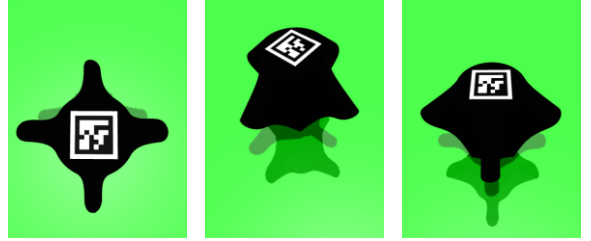


1



SU	SV	SH	BU	BV	BD	D
12.96	13.08	11.76	8.74	8.64	8.09	343.94

2



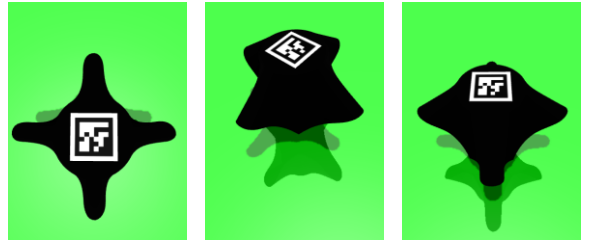
SU	SV	SH	BU	BV	BD	D
9.31	10.58	8.70	6.94	7.79	7.49	343.94

3



SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	8.04	7.64	8.29	343.94

4



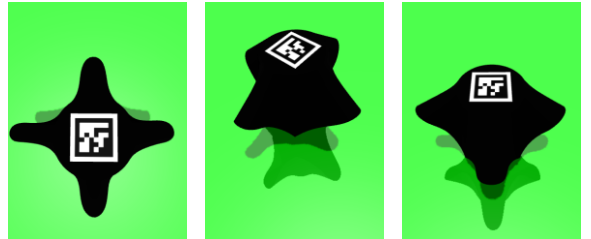
SU	SV	SH	BU	BV	BD	D
11.26	11.53	10.76	8.19	7.44	7.88	343.94

5



SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	8.74	7.99	8.44	343.94

6



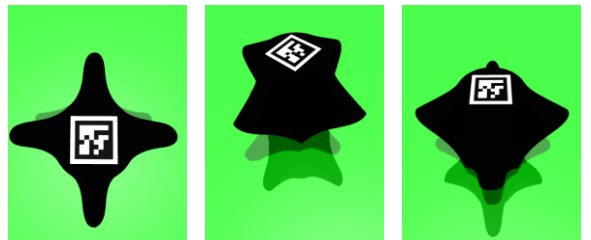
SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	8.99	6.99	7.47	343.94

7



SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	8.89	7.03	7.47	343.94

8



SU	SV	SH	BU	BV	BD	D
12.16	13.08	11.81	8.54	8.94	8.49	343.94

9



SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	7.78	7.03	8.89	343.94

10



SU	SV	SH	BU	BV	BD	D
12.63	12.89	12.12	8.24	7.49	7.93	343.94

Task 4

Fabric Type	Rib					
Composition	TENCEL™ Lyocell(66%), Wool(28%), Polyurethane(6%)					
Initial parameters						
SU	SV	SH	BU	BV	BD	D
7.49	9.43	6.92	3.83	4.96	4.55	161.11

Target photos

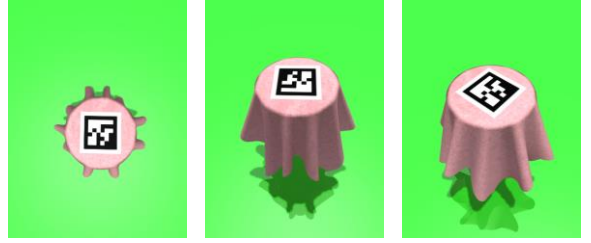


1



SU	SV	SH	BU	BV	BD	D
10.06	12.00	9.50	3.69	4.82	4.42	161.11

2



SU	SV	SH	BU	BV	BD	D
7.76	9.43	6.92	4.14	4.64	5.14	161.11

3



SU	SV	SH	BU	BV	BD	D
7.41	8.48	6.96	3.34	3.74	3.94	161.11

4



SU	SV	SH	BU	BV	BD	D
7.49	9.43	6.92	3.83	4.96	4.55	161.11

5



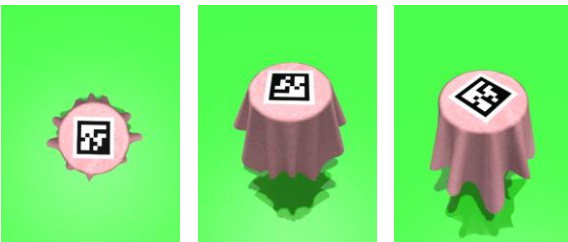
SU	SV	SH	BU	BV	BD	D
7.49	9.43	6.92	4.21	5.34	4.94	161.11

6



SU	SV	SH	BU	BV	BD	D
7.94	9.88	7.38	4.16	5.29	4.88	161.11

7



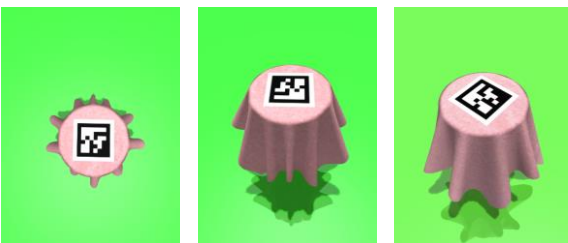
SU	SV	SH	BU	BV	BD	D
8.31	8.68	7.61	4.59	5.19	5.29	161.11

8



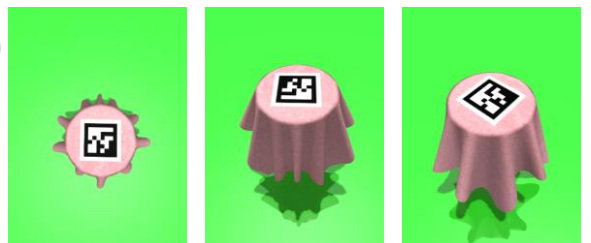
SU	SV	SH	BU	BV	BD	D
8.51	9.78	8.16	4.09	4.89	4.69	161.11

9



SU	SV	SH	BU	BV	BD	D
8.31	9.08	8.16	4.19	5.34	4.69	161.11

10



SU	SV	SH	BU	BV	BD	D
8.01	8.93	8.01	4.34	5.34	5.04	161.11