

A Appendix

A.1 Airfoils



Max. Thickness: 12% at 30% of the chord
Max. Camber: 0

FIGURE A1: NACA 0012



Max. Thickness: 12.7% at 30% of the chord
Max. Camber: 0

FIGURE A2: Gottingen 459



Max. Thickness: 12% at 30% of the chord
Max. Camber: 2% at 40% of the chord

FIGURE A3: NACA 2412



Max. Thickness: 11.7% at 28% of the chord
Max. Camber: 3.4% at 42% of the chord

FIGURE A4: Clark-Y



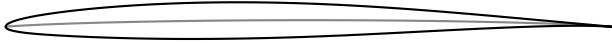
Max. Thickness: 10% at 39.9% of the chord
Max. Camber: 1.5% at 20.4% of the chord

FIGURE A5: Boeing 737



Max. Thickness: 12.1% at 37.9% of the chord
Max. Camber: 1.3% at 75.7% of the chord

FIGURE A6: RAE 2822



Max. Thickness: 6% at 35% of the chord
Max. Camber: 1.1% at 50% of the chord

FIGURE A7: NACA 63206



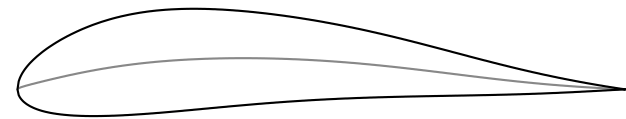
Max. Thickness: 2.5% at 4.3% of the chord
Max. Camber: 9% at 32.7% of the chord

FIGURE A8: Eppler 376



Max. Thickness: 17.4% at 39.3% of the chord
Max. Camber: 1.8% at 29.9% of the chord

FIGURE A9: Eppler 545



Max. Thickness: 16.6% at 19.4% of the chord
Max. Camber: 5.1% at 39.4% of the chord

FIGURE A10: Gottingen 702

A.2 Legend

σ CMA-ES initial standard deviation factor
 I Cardinality of the initial discretisation
 G Length scale gradation factor
 D Mesh remodelling removal distance factor

Tri. Number of elements in the mesh
Time Execution time
Preserv. Element preservation
+ Tri. Element surplus
Sp.-up Speed-up

A.3 Results

A.3.1 Gottingen 459

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1067	1.66 ms	.5	1036	0.05 ms	89.95 %	-2.88 %	33.13
					1	1036	0.05 ms	89.95 %	-2.88 %	33.11
					2	1036	0.05 ms	89.95 %	-2.88 %	33.13
					4	1036	0.05 ms	89.95 %	-2.88 %	33.06
	100	2	1866	3.47 ms	.5	1926	0.12 ms	88.54 %	3.21 %	30.09
					1	1926	0.12 ms	88.54 %	3.21 %	30.08
					2	1927	0.12 ms	88.54 %	3.24 %	30.09
					4	1917	0.11 ms	88.55 %	2.74 %	30.66
	200	4	4634	9.63 ms	.5	4681	0.24 ms	90.89 %	1.02 %	39.37
					1	4681	0.25 ms	90.88 %	1.01 %	39.30
					2	4687	0.24 ms	90.91 %	1.14 %	39.59
					4	4693	0.24 ms	90.98 %	1.28 %	40.29
	300	6	9759	20.67 ms	.5	9931	0.43 ms	93.40 %	1.77 %	48.33
					1	9937	0.42 ms	93.40 %	1.83 %	49.07
					2	9985	0.43 ms	93.43 %	2.32 %	48.43
					4	9996	0.42 ms	93.47 %	2.43 %	48.89
	400	8	17289	36.19 ms	.5	17403	0.67 ms	94.86 %	0.66 %	53.79
					1	17410	0.68 ms	94.86 %	0.70 %	53.44
					2	17499	0.69 ms	94.87 %	1.21 %	52.15
					4	17516	0.70 ms	94.89 %	1.31 %	51.80
	700	14	53560	154.08 ms	.5	53726	1.86 ms	96.88 %	0.31 %	82.78
					1	53782	1.87 ms	96.90 %	0.41 %	82.53
					2	54023	1.92 ms	96.88 %	0.86 %	80.33
					4	54124	2.05 ms	96.86 %	1.05 %	75.13

TABLE A1: Full results of mesh remodelling for $\sigma = 0.01$ - Gottingen 459 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1069	1.67 ms	.5	1163	0.05 ms	90.83 %	8.82 %	32.95
					1	1164	0.05 ms	90.83 %	8.85 %	32.89
					2	1173	0.05 ms	90.91 %	9.69 %	33.02
					4	1185	0.05 ms	91.16 %	10.81 %	34.36
	100	2	1871	3.47 ms	.5	2177	0.12 ms	89.94 %	16.34 %	29.59
					1	2178	0.12 ms	89.92 %	16.38 %	29.24
					2	2195	0.12 ms	90.02 %	17.27 %	29.57
					4	2197	0.12 ms	90.16 %	17.42 %	30.17
	200	4	4632	9.60 ms	.5	4885	0.29 ms	91.03 %	5.46 %	33.54
					1	4931	0.29 ms	91.09 %	6.45 %	33.21
					2	5003	0.30 ms	91.17 %	8.00 %	32.50
					4	4945	0.30 ms	91.10 %	6.76 %	31.79
	300	6	9759	20.43 ms	.5	10297	0.54 ms	93.38 %	5.51 %	37.79
					1	10320	0.54 ms	93.42 %	5.75 %	38.01
					2	10387	0.57 ms	93.39 %	6.44 %	36.15
					4	10277	0.61 ms	93.30 %	5.30 %	33.48
	400	8	17280	36.11 ms	.5	17953	0.90 ms	94.78 %	3.89 %	40.06
					1	18010	0.93 ms	94.80 %	4.22 %	38.94
					2	18072	0.99 ms	94.75 %	4.58 %	36.53
					4	17926	1.07 ms	94.62 %	3.74 %	33.84
	700	14	53571	153.94 ms	.5	55333	2.58 ms	96.78 %	3.29 %	59.58
					1	55424	2.72 ms	96.76 %	3.46 %	56.60
					2	55455	3.00 ms	96.68 %	3.52 %	51.31
					4	55178	3.53 ms	96.50 %	3.00 %	43.65

TABLE A2: Full results of mesh remodelling for $\sigma = 0.05$ - Gottingen 459 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1093	1.69 ms	.5	1556	0.07 ms	92.60 %	42.37 %	25.62
					1	1564	0.07 ms	92.59 %	43.09 %	25.53
					2	1623	0.07 ms	92.89 %	48.51 %	25.62
					4	1657	0.07 ms	93.01 %	51.56 %	24.06
	100	2	1867	3.43 ms	.5	2658	0.16 ms	91.35 %	42.36 %	21.53
					1	2667	0.16 ms	91.33 %	42.85 %	21.02
					2	2673	0.17 ms	91.30 %	43.20 %	20.14
					4	2657	0.19 ms	91.07 %	42.34 %	18.10
	200	4	4624	9.08 ms	.5	5946	0.43 ms	92.10 %	28.58 %	21.10
					1	5705	0.45 ms	91.70 %	23.36 %	20.38
					2	5490	0.49 ms	91.15 %	18.72 %	18.59
					4	5227	0.57 ms	90.36 %	13.03 %	15.87
	300	6	9755	19.32 ms	.5	12148	0.88 ms	93.85 %	24.53 %	21.99
					1	11595	0.92 ms	93.48 %	18.85 %	20.99
					2	11039	1.03 ms	92.90 %	13.16 %	18.73
					4	10538	1.27 ms	92.07 %	8.02 %	15.19
	400	8	17250	35.52 ms	.5	21002	1.44 ms	94.98 %	21.75 %	24.70
					1	20114	1.57 ms	94.65 %	16.61 %	22.65
					2	19017	1.89 ms	94.07 %	10.25 %	18.79
					4	18230	2.41 ms	93.22 %	5.68 %	14.71
	700	14	53523	152.32 ms	.5	64168	4.95 ms	96.65 %	19.89 %	30.75
					1	61973	5.78 ms	96.35 %	15.79 %	26.37
					2	58137	6.94 ms	95.83 %	8.62 %	21.95
					4	55999	9.58 ms	94.95 %	4.63 %	15.90

TABLE A3: Full results of mesh remodelling for $\sigma = 0.25$ - Gottingen 459 airfoil
Average of thirty optimisation scenarios

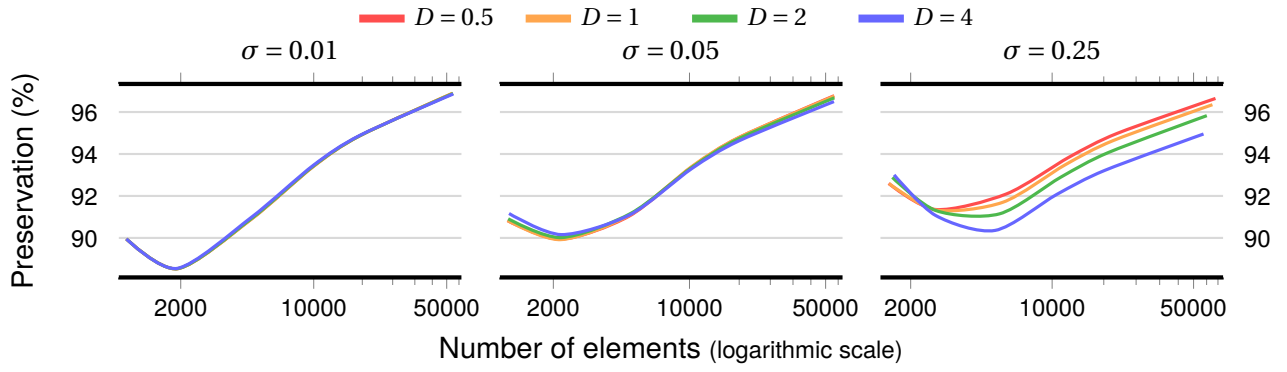


FIGURE A11: Element preservation results using mesh remodelling - Gottingen 459 airfoil
Average of thirty optimisation scenarios

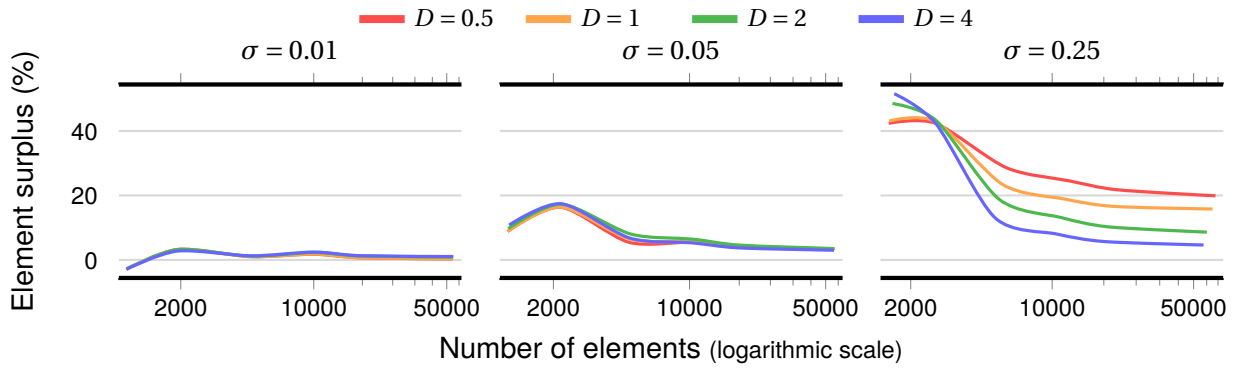


FIGURE A12: Element surplus results on meshes from mesh remodelling - Gottingen 459 airfoil
Average of thirty optimisation scenarios

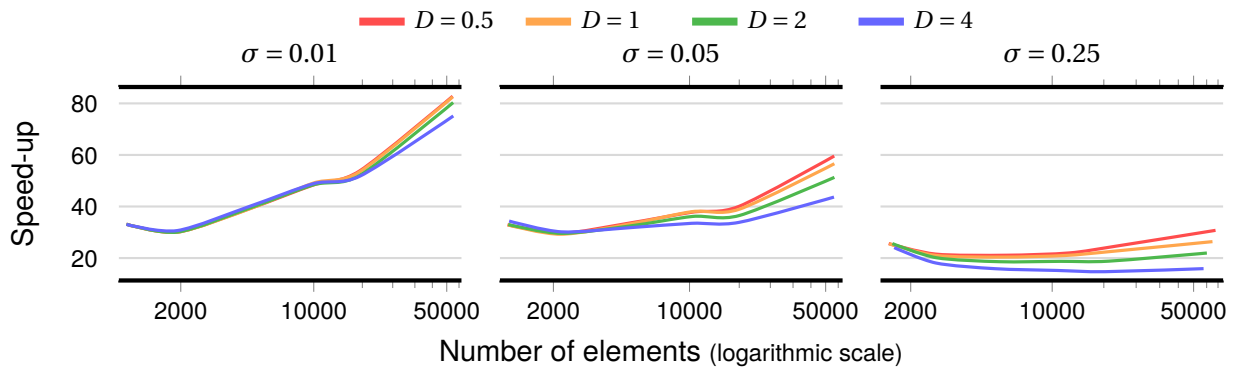


FIGURE A13: Speed-up results by mesh remodelling - Gottingen 459 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1048	1.64 ms	.5	1115	0.05 ms	90.49 %	6.45 %	32.23
					1	1115	0.05 ms	90.49 %	6.45 %	32.23
					2	1115	0.05 ms	90.52 %	6.43 %	32.31
					4	1114	0.05 ms	90.58 %	6.37 %	33.25
	100	2	1823	3.39 ms	.5	2154	0.12 ms	89.75 %	18.16 %	28.42
					1	2153	0.12 ms	89.77 %	18.14 %	28.68
					2	2147	0.12 ms	89.76 %	17.80 %	28.75
					4	2130	0.11 ms	89.87 %	16.86 %	29.74
	200	4	4618	9.49 ms	.5	4981	0.29 ms	91.19 %	7.86 %	32.36
					1	4967	0.29 ms	91.17 %	7.54 %	32.64
					2	4982	0.30 ms	91.18 %	7.88 %	32.02
					4	4907	0.29 ms	91.12 %	6.26 %	32.18
	300	6	9781	20.52 ms	.5	10377	0.55 ms	93.47 %	6.08 %	37.12
					1	10369	0.56 ms	93.48 %	6.01 %	36.85
					2	10390	0.58 ms	93.46 %	6.23 %	35.13
					4	10286	0.59 ms	93.37 %	5.16 %	34.81
	400	8	17288	35.91 ms	.5	18148	0.96 ms	94.86 %	4.97 %	37.22
					1	18134	0.98 ms	94.86 %	4.89 %	36.78
					2	18107	1.02 ms	94.80 %	4.74 %	35.30
					4	17957	1.07 ms	94.68 %	3.87 %	33.61
	700	14	53632	153.47 ms	.5	55929	2.85 ms	96.84 %	4.28 %	53.91
					1	55791	2.97 ms	96.81 %	4.03 %	51.60
					2	55631	3.26 ms	96.71 %	3.73 %	47.03
					4	55294	3.75 ms	96.53 %	3.10 %	40.91

TABLE A4: Full results of mesh remodelling for $\sigma = 0.01$ - NACA 2412 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1062	1.65 ms	.5	1295	0.05 ms	91.44 %	21.95 %	31.17
					1	1303	0.05 ms	91.48 %	22.73 %	31.25
					2	1298	0.05 ms	91.52 %	22.18 %	31.21
					4	1299	0.05 ms	91.62 %	22.29 %	32.14
	100	2	1818	3.37 ms	.5	2320	0.13 ms	90.38 %	27.60 %	25.82
					1	2326	0.13 ms	90.42 %	27.94 %	25.94
					2	2346	0.13 ms	90.51 %	29.07 %	25.98
					4	2311	0.13 ms	90.49 %	27.14 %	26.42
	200	4	4617	9.38 ms	.5	5139	0.33 ms	91.28 %	11.29 %	28.84
					1	5118	0.32 ms	91.27 %	10.84 %	28.89
					2	5136	0.34 ms	91.24 %	11.24 %	27.89
					4	5030	0.35 ms	91.06 %	8.94 %	26.97
	300	6	9783	19.84 ms	.5	10653	0.63 ms	93.48 %	8.89 %	31.27
					1	10642	0.64 ms	93.46 %	8.78 %	30.86
					2	10592	0.70 ms	93.36 %	8.27 %	28.38
					4	10376	0.73 ms	93.12 %	6.07 %	27.23
	400	8	17288	35.80 ms	.5	18583	1.11 ms	94.83 %	7.49 %	32.13
					1	18521	1.13 ms	94.79 %	7.13 %	31.60
					2	18418	1.22 ms	94.66 %	6.54 %	29.31
					4	18060	1.34 ms	94.40 %	4.46 %	26.72
	700	14	53646	153.45 ms	.5	57211	3.39 ms	96.75 %	6.65 %	45.32
					1	56982	3.59 ms	96.69 %	6.22 %	42.78
					2	56504	4.08 ms	96.54 %	5.33 %	37.61
					4	55566	4.90 ms	96.23 %	3.58 %	31.33

TABLE A5: Full results of mesh remodelling for $\sigma = 0.05$ - NACA 2412 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1084	1.67 ms	.5	1570	0.07 ms	92.66 %	44.88 %	25.39
					1	1592	0.07 ms	92.72 %	46.85 %	25.20
					2	1610	0.07 ms	92.78 %	48.57 %	24.96
					4	1664	0.07 ms	93.04 %	53.51 %	23.36
	100	2	1822	3.34 ms	.5	2669	0.16 ms	91.37 %	46.44 %	20.34
					1	2668	0.17 ms	91.29 %	46.42 %	19.96
					2	2668	0.17 ms	91.25 %	46.39 %	19.17
					4	2645	0.19 ms	90.99 %	45.11 %	17.19
	200	4	4610	8.98 ms	.5	5943	0.44 ms	92.09 %	28.91 %	20.40
					1	5717	0.46 ms	91.68 %	24.01 %	19.67
					2	5463	0.51 ms	91.06 %	18.50 %	17.76
					4	5240	0.60 ms	90.29 %	13.67 %	15.07
	300	6	9778	19.19 ms	.5	12118	0.91 ms	93.84 %	23.94 %	21.20
					1	11591	0.95 ms	93.45 %	18.55 %	20.17
					2	10997	1.08 ms	92.86 %	12.47 %	17.79
					4	10558	1.33 ms	91.99 %	7.99 %	14.46
	400	8	17273	35.35 ms	.5	20974	1.51 ms	94.97 %	21.43 %	23.36
					1	20113	1.69 ms	94.61 %	16.45 %	20.90
					2	18937	1.99 ms	94.02 %	9.64 %	17.81
					4	18201	2.55 ms	93.12 %	5.37 %	13.86
	700	14	53607	151.91 ms	.5	64172	5.29 ms	96.62 %	19.71 %	28.70
					1	61833	6.15 ms	96.32 %	15.34 %	24.69
					2	57864	7.40 ms	95.76 %	7.94 %	20.54
					4	55940	10.16 ms	94.86 %	4.35 %	14.95

TABLE A6: Full results of mesh remodelling for $\sigma = 0.25$ - NACA 2412 airfoil
Average of thirty optimisation scenarios

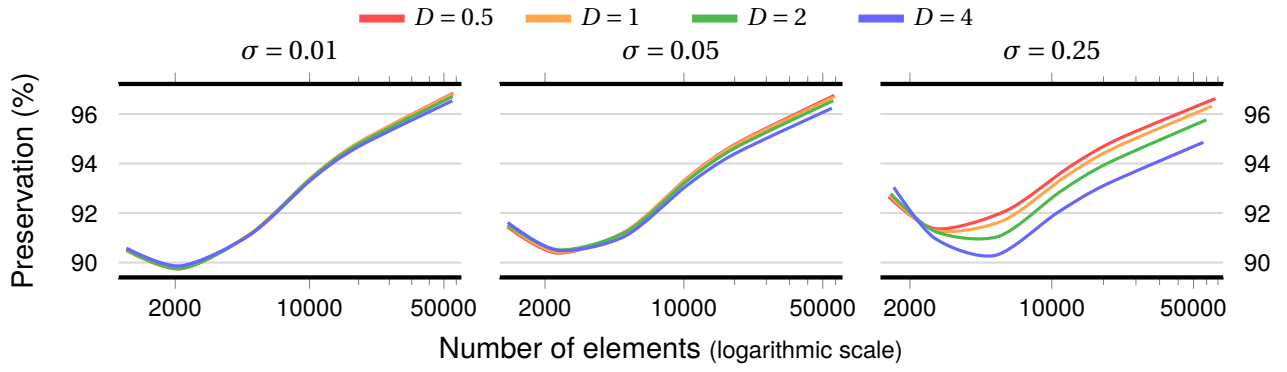


FIGURE A14: Element preservation results using mesh remodelling - NACA 2412 airfoil
Average of thirty optimisation scenarios

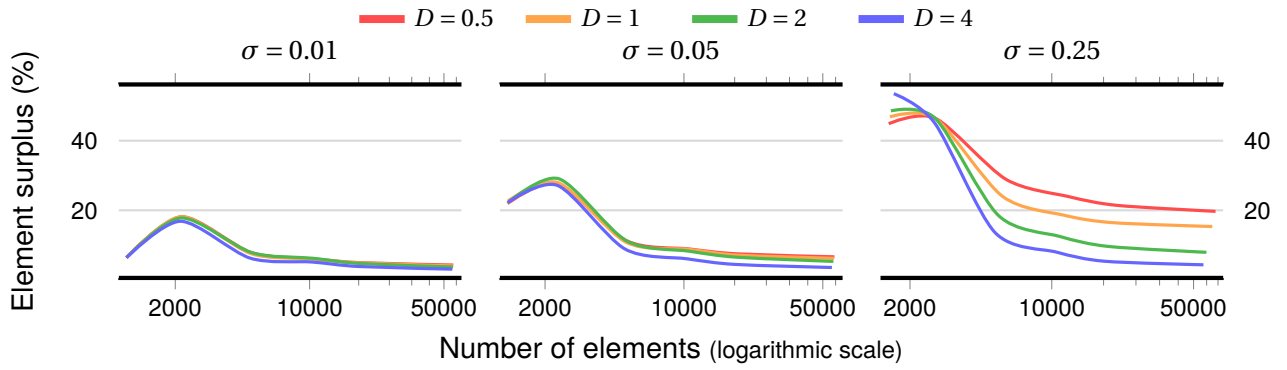


FIGURE A15: Element surplus results on meshes from mesh remodelling - NACA 2412 airfoil
Average of thirty optimisation scenarios

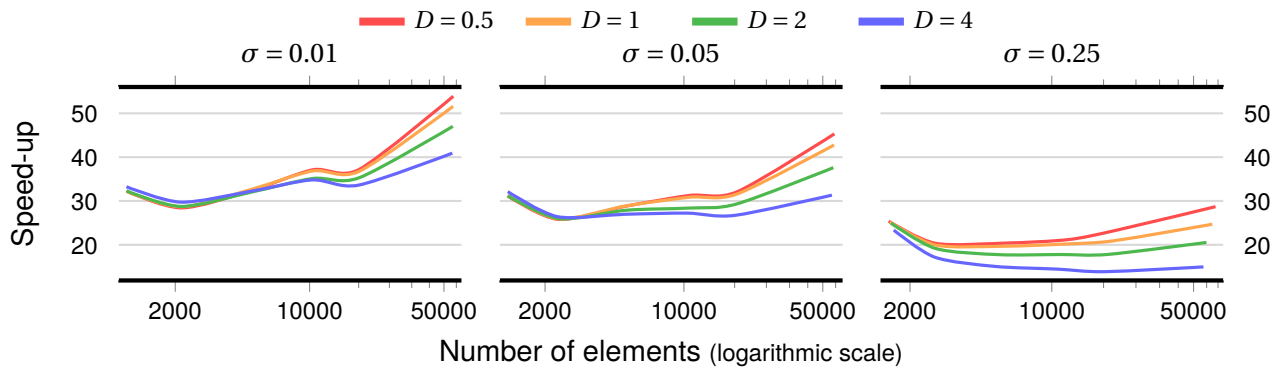


FIGURE A16: Speed-up results by mesh remodelling - NACA 2412 airfoil
Average of thirty optimisation scenarios

A.3.3 Clark-Y

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1052	1.68 ms	.5	1269	0.05 ms	91.31 %	20.65 %	31.69
					1	1264	0.05 ms	91.27 %	20.14 %	31.61
					2	1268	0.05 ms	91.35 %	20.56 %	31.97
					4	1271	0.05 ms	91.50 %	20.87 %	32.95
	100	2	1850	3.52 ms	.5	2276	0.13 ms	90.20 %	23.05 %	26.87
					1	2292	0.13 ms	90.29 %	23.87 %	26.88
					2	2317	0.13 ms	90.39 %	25.25 %	26.82
					4	2295	0.13 ms	90.40 %	24.07 %	27.41
	200	4	4627	9.81 ms	.5	5182	0.34 ms	91.36 %	12.00 %	29.25
					1	5161	0.33 ms	91.33 %	11.54 %	29.44
					2	5159	0.35 ms	91.24 %	11.50 %	28.17
					4	5047	0.36 ms	91.05 %	9.08 %	27.11
	300	6	9833	20.79 ms	.5	10781	0.66 ms	93.53 %	9.64 %	31.71
					1	10724	0.67 ms	93.48 %	9.06 %	31.07
					2	10662	0.70 ms	93.37 %	8.43 %	29.90
					4	10421	0.76 ms	93.10 %	5.97 %	27.42
	400	8	17337	37.37 ms	.5	18828	1.13 ms	94.86 %	8.60 %	32.94
					1	18701	1.16 ms	94.80 %	7.86 %	32.28
					2	18531	1.26 ms	94.66 %	6.88 %	29.72
					4	18138	1.38 ms	94.37 %	4.62 %	27.00
	700	14	53738	157.90 ms	.5	57984	3.49 ms	96.77 %	7.90 %	45.20
					1	57488	3.72 ms	96.69 %	6.98 %	42.39
					2	56804	4.23 ms	96.52 %	5.71 %	37.35
					4	55824	5.07 ms	96.18 %	3.88 %	31.14

TABLE A7: Full results of mesh remodelling for $\sigma = 0.01$ - Clark-Y airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1057	1.68 ms	.5	1386	0.06 ms	91.85 %	31.09 %	29.81
					1	1384	0.06 ms	91.85 %	30.87 %	29.60
					2	1397	0.06 ms	91.97 %	32.13 %	30.38
					4	1381	0.05 ms	91.99 %	30.63 %	31.08
	100	2	1844	3.49 ms	.5	2377	0.14 ms	90.54 %	28.93 %	25.43
					1	2384	0.13 ms	90.59 %	29.33 %	26.00
					2	2420	0.14 ms	90.75 %	31.26 %	25.39
					4	2398	0.14 ms	90.74 %	30.05 %	25.37
	200	4	4627	9.55 ms	.5	5279	0.35 ms	91.44 %	14.09 %	27.40
					1	5254	0.35 ms	91.40 %	13.56 %	27.21
					2	5228	0.37 ms	91.28 %	13.01 %	25.98
					4	5081	0.39 ms	90.96 %	9.83 %	24.26
	300	6	9834	20.30 ms	.5	10966	0.69 ms	93.56 %	11.51 %	29.28
					1	10885	0.71 ms	93.49 %	10.69 %	28.75
					2	10717	0.75 ms	93.29 %	8.98 %	27.12
					4	10439	0.83 ms	92.94 %	6.16 %	24.37
	400	8	17336	37.06 ms	.5	19098	1.19 ms	94.86 %	10.16 %	31.21
					1	18943	1.24 ms	94.77 %	9.27 %	29.79
					2	18604	1.35 ms	94.57 %	7.31 %	27.46
					4	18175	1.55 ms	94.20 %	4.84 %	23.86
	700	14	53740	157.14 ms	.5	58814	3.72 ms	96.74 %	9.44 %	42.21
					1	58424	4.09 ms	96.63 %	8.72 %	38.46
					2	56995	4.65 ms	96.41 %	6.06 %	33.81
					4	55852	5.81 ms	96.00 %	3.93 %	27.05

TABLE A8: Full results of mesh remodelling for $\sigma = 0.05$ - Clark-Y airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1061	1.67 ms	.5	1568	0.07 ms	92.55 %	47.84 %	24.36
					1	1588	0.07 ms	92.64 %	49.75 %	24.67
					2	1607	0.07 ms	92.77 %	51.58 %	24.35
					4	1694	0.07 ms	93.12 %	59.69 %	22.85
	100	2	1860	3.48 ms	.5	2702	0.17 ms	91.46 %	45.28 %	20.74
					1	2687	0.17 ms	91.38 %	44.47 %	20.69
					2	2684	0.18 ms	91.29 %	44.30 %	19.69
					4	2676	0.20 ms	91.04 %	43.88 %	17.37
	200	4	4617	9.28 ms	.5	6014	0.45 ms	92.14 %	30.27 %	20.67
					1	5772	0.47 ms	91.72 %	25.01 %	19.70
					2	5507	0.52 ms	91.09 %	19.28 %	17.84
					4	5274	0.61 ms	90.27 %	14.24 %	15.23
	300	6	9822	19.84 ms	.5	12278	0.92 ms	93.88 %	25.00 %	21.51
					1	11711	0.99 ms	93.47 %	19.23 %	20.11
					2	11073	1.11 ms	92.82 %	12.73 %	17.82
					4	10604	1.37 ms	91.95 %	7.96 %	14.47
	400	8	17313	36.42 ms	.5	21270	1.54 ms	95.00 %	22.86 %	23.60
					1	20286	1.70 ms	94.63 %	17.17 %	21.43
					2	19096	2.07 ms	93.99 %	10.30 %	17.58
					4	18295	2.63 ms	93.09 %	5.67 %	13.86
	700	14	53661	154.67 ms	.5	64968	5.46 ms	96.64 %	21.07 %	28.32
					1	62456	6.32 ms	96.31 %	16.39 %	24.47
					2	58286	7.58 ms	95.73 %	8.62 %	20.41
					4	56173	10.48 ms	94.80 %	4.68 %	14.76

TABLE A9: Full results of mesh remodelling for $\sigma = 0.25$ - Clark-Y airfoil
Average of thirty optimisation scenarios

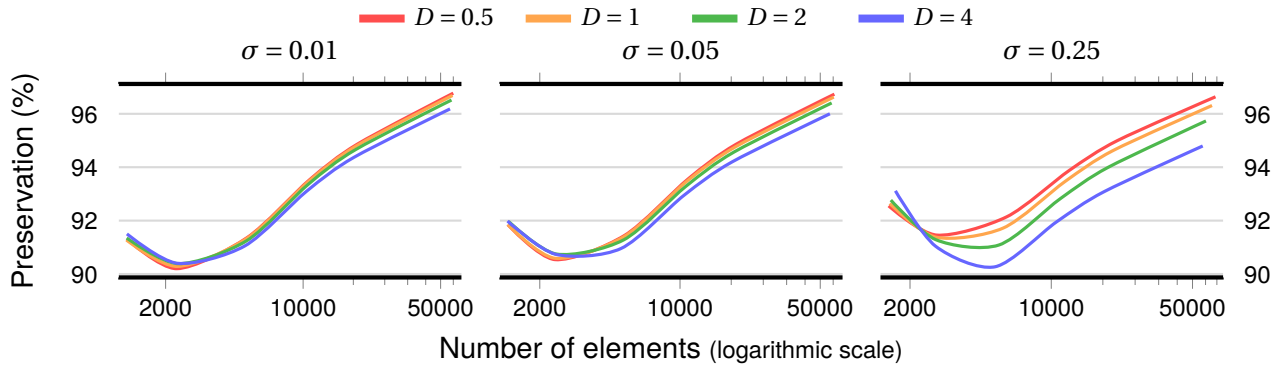


FIGURE A17: Element preservation results using mesh remodelling - Clark-Y airfoil
Average of thirty optimisation scenarios

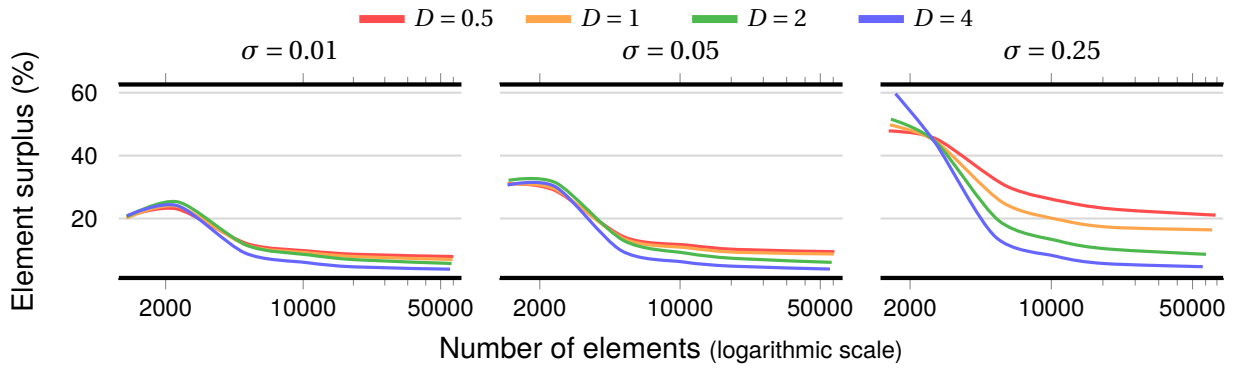


FIGURE A18: Element surplus results on meshes from mesh remodelling - Clark-Y airfoil
Average of thirty optimisation scenarios

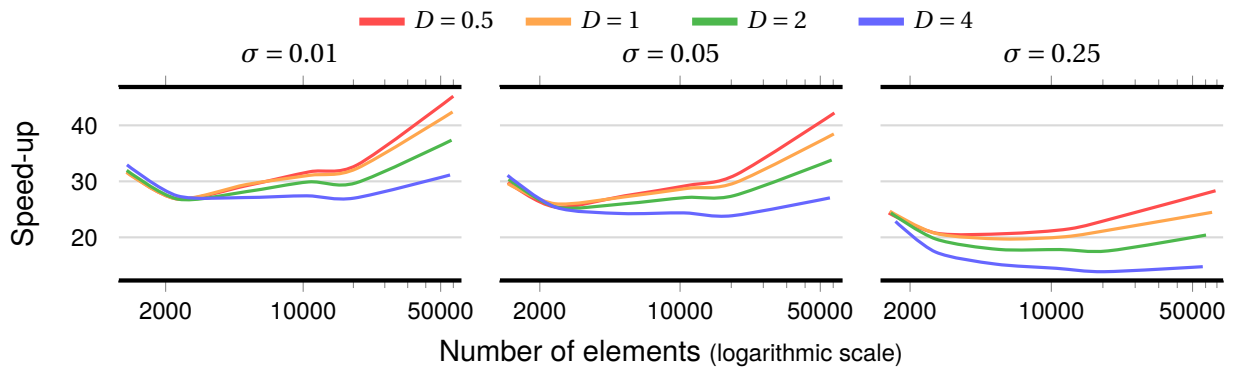


FIGURE A19: Speed-up results by mesh remodelling - Clark-Y airfoil
Average of thirty optimisation scenarios

A.3.4 Boeing 737

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1167	1.78 ms	.5	1182	0.05 ms	90.97 %	1.24 %	34.92
					1	1182	0.05 ms	90.97 %	1.24 %	34.99
					2	1184	0.05 ms	90.99 %	1.47 %	35.11
					4	1192	0.05 ms	91.15 %	2.11 %	36.38
	100	2	1864	3.42 ms	.5	2215	0.12 ms	89.98 %	18.86 %	27.65
					1	2217	0.12 ms	90.00 %	18.95 %	27.64
					2	2229	0.12 ms	90.07 %	19.60 %	27.86
					4	2228	0.12 ms	90.19 %	19.53 %	28.44
	200	4	4716	9.56 ms	.5	5182	0.32 ms	91.46 %	9.87 %	30.26
					1	5156	0.31 ms	91.43 %	9.32 %	30.80
					2	5150	0.32 ms	91.38 %	9.21 %	29.66
					4	5054	0.31 ms	91.30 %	7.16 %	30.63
	300	6	9982	20.06 ms	.5	10894	0.62 ms	93.71 %	9.14 %	32.25
					1	10845	0.63 ms	93.66 %	8.65 %	32.01
					2	10788	0.66 ms	93.60 %	8.08 %	30.42
					4	10584	0.68 ms	93.45 %	6.04 %	29.38
	400	8	17626	36.61 ms	.5	19120	1.09 ms	95.04 %	8.47 %	33.47
					1	18986	1.11 ms	94.99 %	7.71 %	32.94
					2	18838	1.17 ms	94.90 %	6.88 %	31.31
					4	18490	1.25 ms	94.72 %	4.90 %	29.31
	700	14	54768	158.33 ms	.5	59055	3.31 ms	96.89 %	7.83 %	47.84
					1	58578	3.44 ms	96.84 %	6.96 %	45.97
					2	57903	3.71 ms	96.73 %	5.72 %	42.68
					4	56903	4.32 ms	96.51 %	3.90 %	36.68

TABLE A10: Full results of mesh remodelling for $\sigma = 0.01$ - Boeing 737 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1165	1.78 ms	.5	1280	0.05 ms	91.48 %	9.81 %	33.55
					1	1279	0.05 ms	91.47 %	9.73 %	33.46
					2	1317	0.05 ms	91.71 %	12.99 %	34.04
					4	1310	0.05 ms	91.78 %	12.44 %	34.50
	100	2	1864	3.41 ms	.5	2390	0.13 ms	90.59 %	28.20 %	25.95
					1	2411	0.13 ms	90.67 %	29.31 %	26.13
					2	2404	0.13 ms	90.69 %	28.93 %	26.03
					4	2416	0.13 ms	90.83 %	29.58 %	26.55
	200	4	4717	9.20 ms	.5	5291	0.34 ms	91.50 %	12.16 %	27.31
					1	5293	0.34 ms	91.50 %	12.20 %	26.80
					2	5296	0.35 ms	91.46 %	12.27 %	26.09
					4	5161	0.36 ms	91.27 %	9.41 %	25.91
	300	6	9982	19.73 ms	.5	11085	0.69 ms	93.68 %	11.06 %	28.43
					1	11011	0.70 ms	93.63 %	10.31 %	28.25
					2	10928	0.73 ms	93.54 %	9.48 %	27.21
					4	10652	0.77 ms	93.27 %	6.71 %	25.47
	400	8	17627	36.40 ms	.5	19376	1.22 ms	94.97 %	9.92 %	29.74
					1	19272	1.25 ms	94.92 %	9.33 %	29.20
					2	18999	1.32 ms	94.79 %	7.78 %	27.49
					4	18521	1.46 ms	94.50 %	5.07 %	24.99
	700	14	54755	157.51 ms	.5	59893	3.69 ms	96.82 %	9.38 %	42.66
					1	59538	3.96 ms	96.74 %	8.74 %	39.81
					2	58279	4.30 ms	96.60 %	6.44 %	36.62
					4	56986	5.19 ms	96.27 %	4.08 %	30.35

TABLE A11: Full results of mesh remodelling for $\sigma = 0.05$ - Boeing 737 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1172	1.78 ms	.5	1646	0.07 ms	92.82 %	40.50 %	26.26
					1	1663	0.07 ms	92.94 %	41.94 %	25.52
					2	1689	0.07 ms	92.99 %	44.13 %	25.79
					4	1801	0.08 ms	93.38 %	53.73 %	23.76
	100	2	1859	3.39 ms	.5	2810	0.17 ms	91.71 %	51.15 %	20.31
					1	2790	0.17 ms	91.62 %	50.07 %	19.89
					2	2773	0.18 ms	91.48 %	49.11 %	19.13
					4	2773	0.20 ms	91.23 %	49.14 %	16.82
	200	4	4715	9.06 ms	.5	6177	0.45 ms	92.32 %	31.02 %	19.92
					1	5894	0.47 ms	91.88 %	25.02 %	19.37
					2	5655	0.52 ms	91.28 %	19.94 %	17.57
					4	5387	0.60 ms	90.45 %	14.26 %	15.04
	300	6	9974	19.53 ms	.5	12514	0.92 ms	94.00 %	25.47 %	21.22
					1	11932	0.99 ms	93.59 %	19.63 %	19.82
					2	11316	1.11 ms	92.97 %	13.45 %	17.57
					4	10820	1.36 ms	92.10 %	8.48 %	14.34
	400	8	17610	36.04 ms	.5	21685	1.57 ms	95.09 %	23.14 %	22.99
					1	20686	1.72 ms	94.71 %	17.47 %	20.99
					2	19525	2.03 ms	94.11 %	10.87 %	17.78
					4	18649	2.62 ms	93.21 %	5.90 %	13.78
	700	14	54727	156.47 ms	.5	66406	5.46 ms	96.69 %	21.34 %	28.66
					1	63703	6.31 ms	96.35 %	16.40 %	24.80
					2	59598	7.52 ms	95.81 %	8.90 %	20.82
					4	57326	10.38 ms	94.88 %	4.75 %	15.08

TABLE A12: Full results of mesh remodelling for $\sigma = 0.25$ - Boeing 737 airfoil
Average of thirty optimisation scenarios

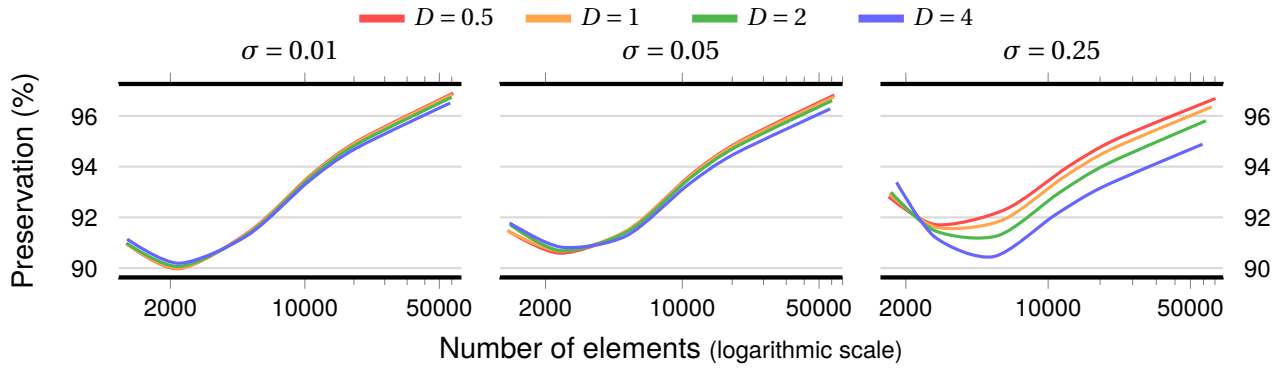


FIGURE A20: Element preservation results using mesh remodelling - Boeing 737 airfoil
Average of thirty optimisation scenarios

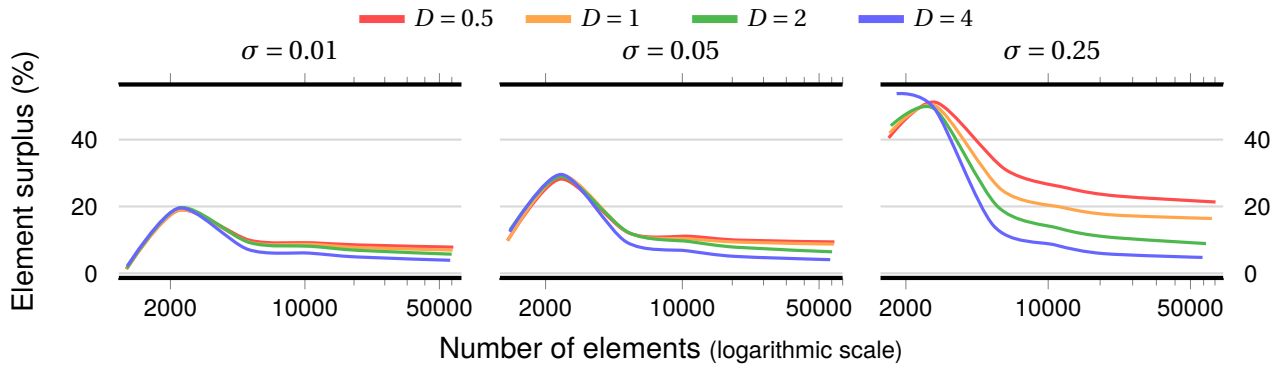


FIGURE A21: Element surplus results on meshes from mesh remodelling - Boeing 737 airfoil
Average of thirty optimisation scenarios

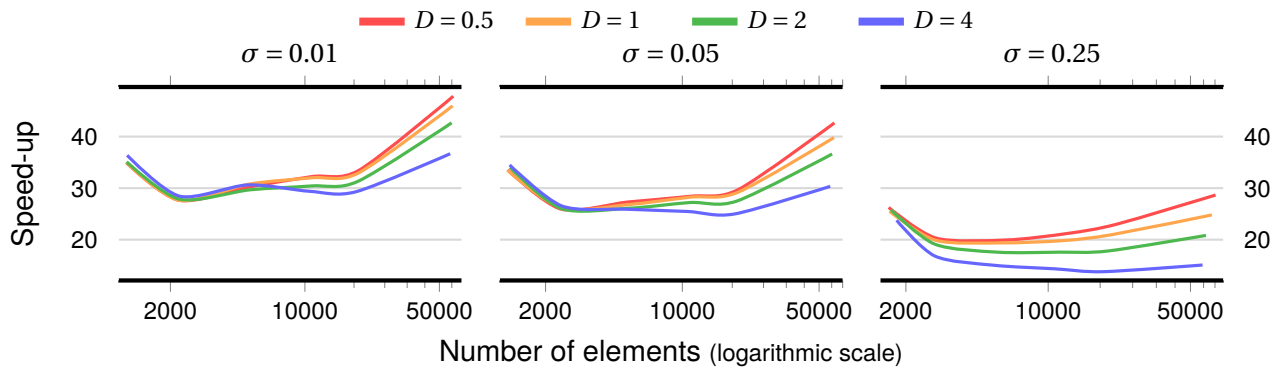


FIGURE A22: Speed-up results by mesh remodelling - Boeing 737 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1231	1.87 ms	.5	1143	0.05 ms	90.62 %	-7.19 %	36.29
					1	1143	0.05 ms	90.62 %	-7.19 %	36.29
					2	1147	0.05 ms	90.65 %	-6.81 %	36.17
					4	1149	0.05 ms	90.82 %	-6.72 %	38.17
	100	2	1856	3.47 ms	.5	2190	0.12 ms	89.93 %	18.03 %	28.77
					1	2204	0.12 ms	89.98 %	18.76 %	28.60
					2	2198	0.12 ms	89.99 %	18.44 %	29.39
					4	2180	0.12 ms	90.00 %	17.46 %	29.83
	200	4	4656	9.76 ms	.5	5024	0.29 ms	91.23 %	7.90 %	33.61
					1	5020	0.29 ms	91.24 %	7.81 %	33.61
					2	5049	0.29 ms	91.28 %	8.43 %	33.47
					4	4988	0.30 ms	91.24 %	7.13 %	33.04
	300	6	9904	20.91 ms	.5	10557	0.54 ms	93.56 %	6.59 %	38.76
					1	10559	0.54 ms	93.57 %	6.61 %	39.04
					2	10575	0.56 ms	93.55 %	6.77 %	37.53
					4	10445	0.58 ms	93.44 %	5.46 %	36.24
	400	8	17522	37.35 ms	.5	18518	0.91 ms	94.95 %	5.69 %	41.25
					1	18496	0.89 ms	94.93 %	5.56 %	41.78
					2	18463	0.95 ms	94.89 %	5.37 %	39.32
					4	18253	1.03 ms	94.75 %	4.18 %	36.39
	700	14	54517	161.17 ms	.5	57160	2.54 ms	96.89 %	4.85 %	63.50
					1	56994	2.62 ms	96.87 %	4.54 %	61.50
					2	56796	2.88 ms	96.77 %	4.18 %	55.86
					4	56235	3.42 ms	96.59 %	3.15 %	47.12

TABLE A13: Full results of mesh remodelling for $\sigma = 0.01$ - RAE 2822 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1224	1.86 ms	.5	1298	0.05 ms	91.49 %	6.06 %	34.92
					1	1298	0.05 ms	91.50 %	6.02 %	34.90
					2	1303	0.05 ms	91.53 %	6.45 %	35.43
					4	1300	0.05 ms	91.61 %	6.19 %	36.15
	100	2	1852	3.46 ms	.5	2341	0.13 ms	90.46 %	26.41 %	27.25
					1	2350	0.13 ms	90.48 %	26.91 %	26.92
					2	2350	0.13 ms	90.48 %	26.89 %	27.13
					4	2328	0.13 ms	90.51 %	25.71 %	27.46
	200	4	4659	9.60 ms	.5	5187	0.32 ms	91.39 %	11.34 %	30.25
					1	5212	0.32 ms	91.42 %	11.87 %	30.00
					2	5219	0.33 ms	91.41 %	12.03 %	29.47
					4	5087	0.34 ms	91.22 %	9.20 %	28.55
	300	6	9904	20.25 ms	.5	10853	0.60 ms	93.60 %	9.58 %	34.00
					1	10822	0.61 ms	93.58 %	9.27 %	33.44
					2	10752	0.63 ms	93.51 %	8.56 %	31.92
					4	10537	0.69 ms	93.27 %	6.38 %	29.37
	400	8	17522	37.31 ms	.5	18944	1.00 ms	94.93 %	8.11 %	37.48
					1	18923	1.04 ms	94.90 %	7.99 %	35.82
					2	18722	1.11 ms	94.79 %	6.84 %	33.71
					4	18361	1.23 ms	94.55 %	4.79 %	30.36
	700	14	54516	160.95 ms	.5	58605	2.92 ms	96.83 %	7.50 %	55.16
					1	58453	3.12 ms	96.77 %	7.22 %	51.51
					2	57464	3.48 ms	96.65 %	5.41 %	46.29
					4	56479	4.26 ms	96.37 %	3.60 %	37.75

TABLE A14: Full results of mesh remodelling for $\sigma = 0.05$ - RAE 2822 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1214	1.84 ms	.5	1596	0.07 ms	92.69 %	31.53 %	27.27
					1	1608	0.07 ms	92.79 %	32.47 %	27.14
					2	1657	0.07 ms	92.88 %	36.52 %	26.39
					4	1715	0.07 ms	93.15 %	41.31 %	24.72
	100	2	1854	3.42 ms	.5	2757	0.17 ms	91.56 %	48.72 %	20.33
					1	2758	0.17 ms	91.51 %	48.77 %	19.90
					2	2746	0.18 ms	91.40 %	48.17 %	19.02
					4	2716	0.20 ms	91.09 %	46.55 %	17.06
	200	4	4656	9.14 ms	.5	6060	0.44 ms	92.17 %	30.16 %	20.56
					1	5836	0.46 ms	91.78 %	25.35 %	19.71
					2	5559	0.51 ms	91.14 %	19.40 %	17.92
					4	5316	0.61 ms	90.33 %	14.18 %	15.04
	300	6	9895	19.76 ms	.5	12338	0.90 ms	93.89 %	24.70 %	21.85
					1	11813	0.96 ms	93.51 %	19.39 %	20.63
					2	11210	1.09 ms	92.90 %	13.29 %	18.11
					4	10719	1.36 ms	92.00 %	8.33 %	14.58
	400	8	17501	36.46 ms	.5	21384	1.49 ms	95.01 %	22.19 %	24.53
					1	20455	1.65 ms	94.64 %	16.88 %	22.08
					2	19330	1.99 ms	94.04 %	10.46 %	18.31
					4	18519	2.58 ms	93.12 %	5.82 %	14.14
	700	14	54443	158.33 ms	.5	65427	5.23 ms	96.64 %	20.18 %	30.28
					1	63005	6.08 ms	96.32 %	15.73 %	26.03
					2	59103	7.36 ms	95.77 %	8.56 %	21.52
					4	56886	10.33 ms	94.82 %	4.49 %	15.33

TABLE A15: Full results of mesh remodelling for $\sigma = 0.25$ - RAE 2822 airfoil
Average of thirty optimisation scenarios

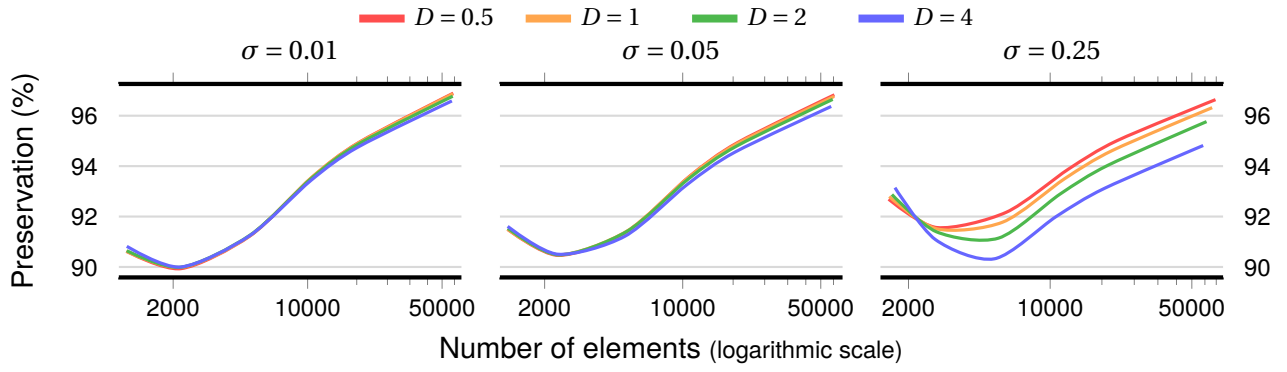


FIGURE A23: Element preservation results using mesh remodelling - RAE 2822 airfoil
Average of thirty optimisation scenarios

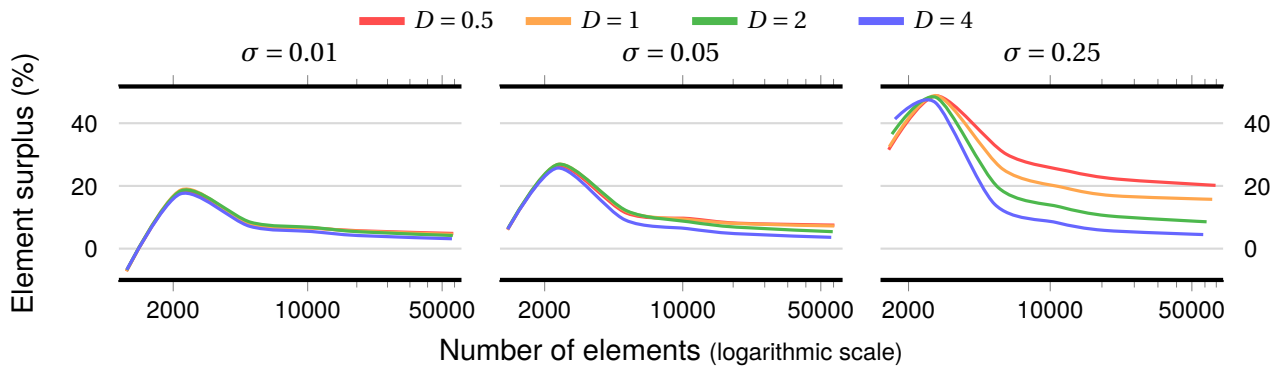


FIGURE A24: Element surplus results on meshes from mesh remodelling - RAE 2822 airfoil
Average of thirty optimisation scenarios

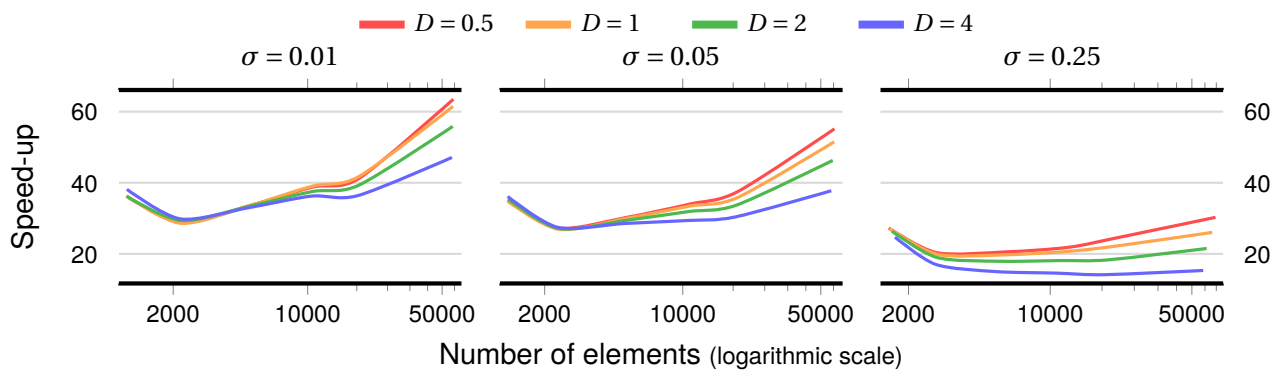


FIGURE A25: Speed-up results by mesh remodelling - RAE 2822 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1218	1.89 ms	.5	1340	0.05 ms	91.71 %	10.01 %	34.31
					1	1340	0.06 ms	91.71 %	10.01 %	34.25
					2	1353	0.05 ms	91.77 %	11.12 %	34.46
					4	1350	0.05 ms	91.81 %	10.89 %	34.35
	100	2	1913	3.53 ms	.5	2421	0.14 ms	90.63 %	26.54 %	26.01
					1	2437	0.14 ms	90.68 %	27.39 %	25.98
					2	2476	0.14 ms	90.84 %	29.42 %	25.97
					4	2465	0.14 ms	90.86 %	28.85 %	25.64
	200	4	4824	9.46 ms	.5	5621	0.34 ms	91.96 %	16.52 %	28.13
					1	5562	0.34 ms	91.87 %	15.31 %	28.06
					2	5481	0.35 ms	91.70 %	13.62 %	26.69
					4	5298	0.37 ms	91.38 %	9.83 %	25.46
	300	6	10184	20.50 ms	.5	11779	0.65 ms	94.03 %	15.66 %	31.56
					1	11592	0.66 ms	93.92 %	13.83 %	31.25
					2	11371	0.70 ms	93.72 %	11.66 %	29.46
					4	10943	0.77 ms	93.33 %	7.45 %	26.49
	400	8	17993	37.82 ms	.5	20727	1.06 ms	95.28 %	15.19 %	35.70
					1	20333	1.08 ms	95.16 %	13.00 %	34.89
					2	19843	1.17 ms	94.94 %	10.28 %	32.27
					4	19079	1.39 ms	94.54 %	6.04 %	27.26
	700	14	55800	164.74 ms	.5	64357	3.31 ms	97.01 %	15.34 %	49.70
					1	63204	3.59 ms	96.90 %	13.27 %	45.88
					2	60989	4.05 ms	96.68 %	9.30 %	40.69
					4	58687	5.10 ms	96.28 %	5.17 %	32.28

TABLE A16: Full results of mesh remodelling for $\sigma = 0.01$ - NACA 63206 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1234	1.90 ms	.5	1443	0.06 ms	92.05 %	16.93 %	32.73
					1	1444	0.06 ms	92.07 %	17.01 %	32.94
					2	1453	0.06 ms	92.17 %	17.72 %	33.38
					4	1456	0.06 ms	92.20 %	18.03 %	32.83
	100	2	1918	3.54 ms	.5	2533	0.14 ms	91.00 %	32.09 %	25.42
					1	2542	0.14 ms	90.99 %	32.54 %	25.11
					2	2570	0.14 ms	91.12 %	34.01 %	25.15
					4	2594	0.15 ms	91.20 %	35.25 %	24.21
	200	4	4825	9.40 ms	.5	5669	0.35 ms	91.98 %	17.49 %	26.82
					1	5601	0.36 ms	91.86 %	16.07 %	26.46
					2	5537	0.37 ms	91.67 %	14.74 %	25.10
					4	5339	0.41 ms	91.27 %	10.65 %	23.20
	300	6	10189	20.36 ms	.5	11837	0.69 ms	93.98 %	16.17 %	29.47
					1	11628	0.70 ms	93.86 %	14.12 %	29.25
					2	11369	0.75 ms	93.61 %	11.58 %	27.07
					4	10950	0.86 ms	93.19 %	7.46 %	23.80
	400	8	17999	37.58 ms	.5	20681	1.11 ms	95.22 %	14.90 %	33.88
					1	20296	1.17 ms	95.07 %	12.76 %	32.16
					2	19780	1.29 ms	94.82 %	9.90 %	29.09
					4	19063	1.55 ms	94.39 %	5.91 %	24.30
	700	14	55826	164.24 ms	.5	63874	3.54 ms	96.94 %	14.41 %	46.38
					1	62901	3.91 ms	96.80 %	12.67 %	42.01
					2	60739	4.47 ms	96.56 %	8.80 %	36.73
					4	58617	5.71 ms	96.11 %	5.00 %	28.77

TABLE A17: Full results of mesh remodelling for $\sigma = 0.05$ - NACA 63206 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1234	1.89 ms	.5	1691	0.07 ms	92.97 %	37.02 %	27.05
					1	1677	0.07 ms	92.95 %	35.87 %	27.28
					2	1735	0.07 ms	93.11 %	40.57 %	26.39
					4	1805	0.08 ms	93.32 %	46.22 %	24.49
	100	2	1923	3.50 ms	.5	2904	0.17 ms	91.89 %	51.05 %	20.39
					1	2901	0.17 ms	91.86 %	50.88 %	20.12
					2	2861	0.18 ms	91.64 %	48.78 %	19.11
					4	2875	0.21 ms	91.45 %	49.54 %	16.89
	200	4	4815	9.20 ms	.5	6401	0.45 ms	92.54 %	32.94 %	20.32
					1	6100	0.46 ms	92.09 %	26.70 %	19.88
					2	5784	0.51 ms	91.42 %	20.12 %	17.96
					4	5506	0.62 ms	90.53 %	14.34 %	14.93
	300	6	10166	19.89 ms	.5	13004	0.90 ms	94.19 %	27.92 %	22.00
					1	12252	0.96 ms	93.72 %	20.52 %	20.72
					2	11598	1.08 ms	93.09 %	14.09 %	18.37
					4	11007	1.37 ms	92.13 %	8.27 %	14.52
	400	8	17955	36.72 ms	.5	22482	1.49 ms	95.24 %	25.21 %	24.63
					1	21241	1.64 ms	94.83 %	18.30 %	22.45
					2	20042	1.94 ms	94.19 %	11.62 %	18.89
					4	19061	2.59 ms	93.25 %	6.16 %	14.20
	700	14	55701	160.93 ms	.5	68776	5.16 ms	96.78 %	23.47 %	31.19
					1	65460	5.98 ms	96.44 %	17.52 %	26.92
					2	61283	7.33 ms	95.86 %	10.02 %	21.94
					4	58546	10.33 ms	94.91 %	5.11 %	15.58

TABLE A18: Full results of mesh remodelling for $\sigma = 0.25$ - NACA 63206 airfoil
Average of thirty optimisation scenarios

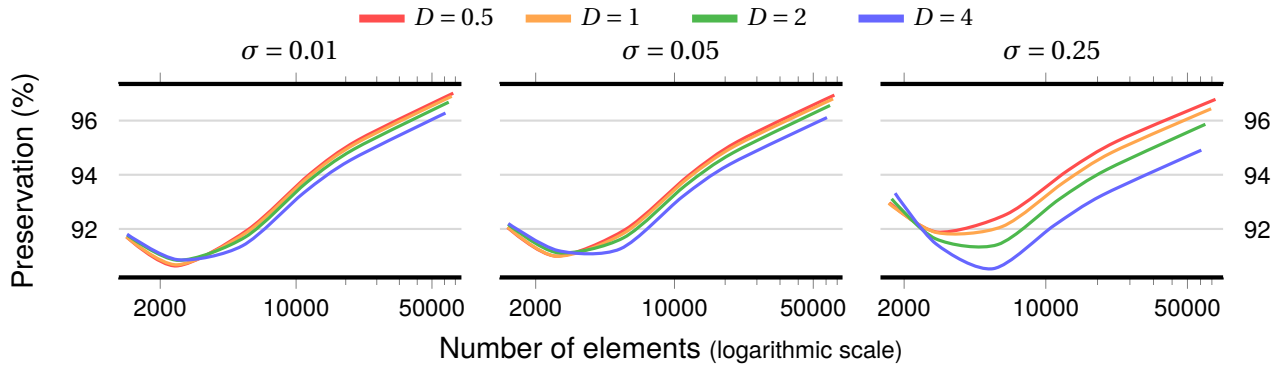


FIGURE A26: Element preservation results using mesh remodelling - NACA 63206 airfoil
Average of thirty optimisation scenarios

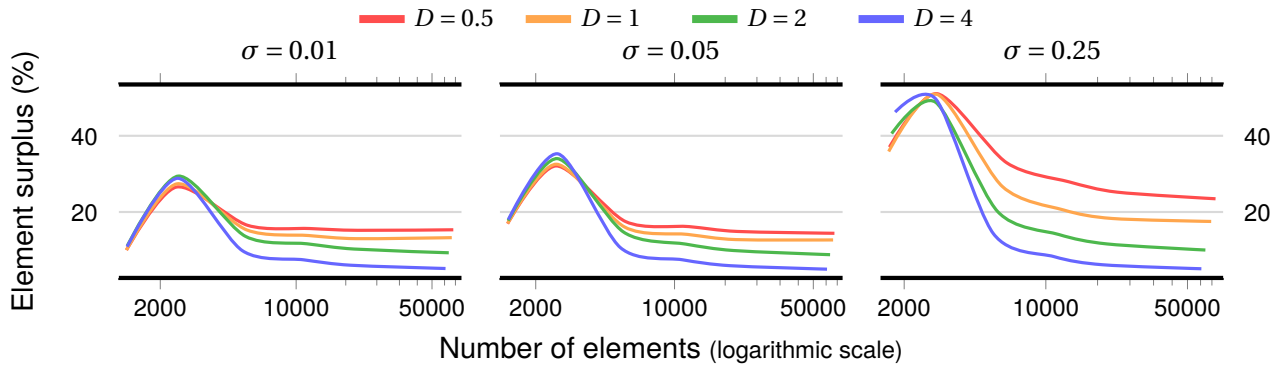


FIGURE A27: Element surplus results on meshes from mesh remodelling - NACA 63206 airfoil
Average of thirty optimisation scenarios

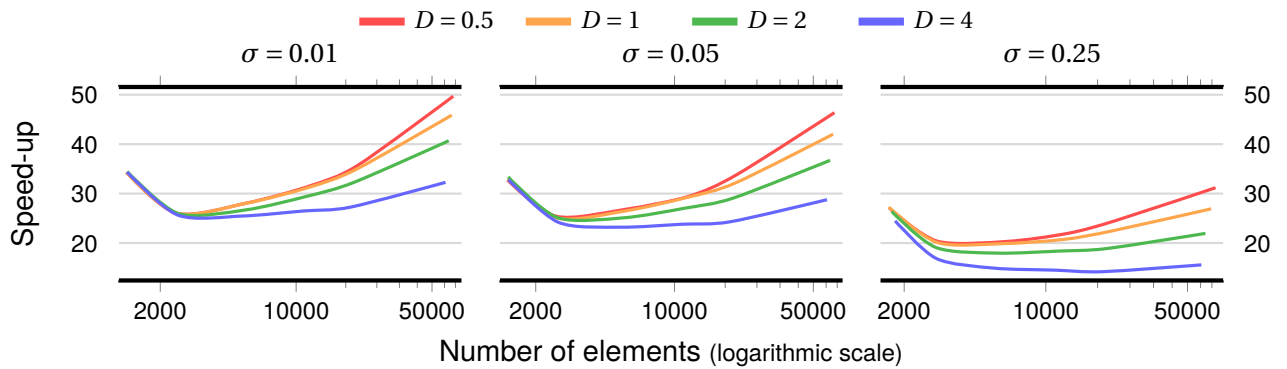


FIGURE A28: Speed-up results by mesh remodelling - NACA 63206 airfoil
Average of thirty optimisation scenarios

A.3.7 Eppler 376

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1210	1.78 ms	.5	1598	0.07 ms	92.70 %	32.00 %	25.53
					1	1585	0.07 ms	92.66 %	30.99 %	25.95
					2	1616	0.07 ms	92.77 %	33.51 %	25.71
					4	1614	0.07 ms	92.70 %	33.39 %	24.76
	100	2	1934	3.27 ms	.5	2740	0.17 ms	91.52 %	41.65 %	18.78
					1	2714	0.17 ms	91.44 %	40.30 %	18.72
					2	2715	0.18 ms	91.42 %	40.35 %	18.41
					4	2738	0.19 ms	91.33 %	41.56 %	17.38
	200	4	4768	8.41 ms	.5	6220	0.48 ms	92.43 %	30.44 %	17.58
					1	5987	0.48 ms	92.11 %	25.55 %	17.63
					2	5687	0.51 ms	91.54 %	19.26 %	16.48
					4	5399	0.58 ms	90.73 %	13.22 %	14.58
	300	6	10103	18.17 ms	.5	12841	0.97 ms	94.19 %	27.10 %	18.68
					1	12307	1.00 ms	93.88 %	21.82 %	18.09
					2	11575	1.10 ms	93.29 %	14.57 %	16.47
					4	11013	1.31 ms	92.48 %	9.01 %	13.91
	400	8	17867	33.71 ms	.5	22453	1.62 ms	95.31 %	25.67 %	20.76
					1	21450	1.72 ms	94.98 %	20.05 %	19.56
					2	20057	1.93 ms	94.42 %	12.26 %	17.50
					4	19064	2.45 ms	93.58 %	6.70 %	13.78
	700	14	55533	151.14 ms	.5	69114	5.52 ms	96.85 %	24.46 %	27.37
					1	66056	6.13 ms	96.55 %	18.95 %	24.66
					2	61394	7.01 ms	96.06 %	10.55 %	21.56
					4	58530	9.56 ms	95.19 %	5.40 %	15.82

TABLE A19: Full results of mesh remodelling for $\sigma = 0.01$ - Eppler 376 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1210	1.77 ms	.5	1608	0.07 ms	92.70 %	32.95 %	24.47
					1	1594	0.07 ms	92.61 %	31.80 %	24.49
					2	1605	0.07 ms	92.63 %	32.66 %	24.61
					4	1647	0.07 ms	92.82 %	36.17 %	23.77
	100	2	1936	3.27 ms	.5	2816	0.18 ms	91.71 %	45.45 %	18.20
					1	2784	0.18 ms	91.63 %	43.83 %	18.02
					2	2771	0.18 ms	91.55 %	43.15 %	17.83
					4	2748	0.20 ms	91.28 %	41.97 %	16.31
	200	4	4767	8.37 ms	.5	6255	0.49 ms	92.41 %	31.20 %	16.99
					1	6009	0.49 ms	92.06 %	26.04 %	16.95
					2	5749	0.54 ms	91.52 %	20.60 %	15.56
					4	5426	0.61 ms	90.63 %	13.83 %	13.79
	300	6	10101	18.10 ms	.5	12940	1.01 ms	94.17 %	28.10 %	17.90
					1	12319	1.05 ms	93.80 %	21.95 %	17.31
					2	11598	1.15 ms	93.19 %	14.82 %	15.76
					4	11030	1.38 ms	92.33 %	9.20 %	13.11
	400	8	17863	33.60 ms	.5	22515	1.67 ms	95.25 %	26.04 %	20.14
					1	21445	1.78 ms	94.90 %	20.05 %	18.86
					2	20081	2.02 ms	94.31 %	12.42 %	16.66
					4	19092	2.60 ms	93.42 %	6.88 %	12.93
	700	14	55526	151.14 ms	.5	69029	5.74 ms	96.79 %	24.32 %	26.34
					1	65971	6.41 ms	96.47 %	18.81 %	23.57
					2	61432	7.47 ms	95.94 %	10.64 %	20.24
					4	58570	10.22 ms	95.01 %	5.48 %	14.79

TABLE A20: Full results of mesh remodelling for $\sigma = 0.05$ - Eppler 376 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1207	1.77 ms	.5	1730	0.08 ms	93.15 %	43.27 %	23.10
					1	1730	0.08 ms	93.15 %	43.31 %	22.96
					2	1773	0.08 ms	93.24 %	46.83 %	22.07
					4	1825	0.09 ms	93.32 %	51.15 %	20.51
	100	2	1938	3.25 ms	.5	2962	0.19 ms	92.05 %	52.85 %	17.55
					1	2923	0.19 ms	91.90 %	50.82 %	17.34
					2	2923	0.20 ms	91.78 %	50.84 %	16.22
					4	2863	0.23 ms	91.27 %	47.74 %	13.87
	200	4	4764	8.34 ms	.5	6693	0.52 ms	92.77 %	40.50 %	16.11
					1	6279	0.53 ms	92.19 %	31.81 %	15.75
					2	5860	0.59 ms	91.38 %	23.01 %	14.14
					4	5562	0.71 ms	90.32 %	16.76 %	11.76
	300	6	10089	18.02 ms	.5	13606	1.07 ms	94.31 %	34.86 %	16.90
					1	12649	1.12 ms	93.77 %	25.38 %	16.05
					2	11707	1.28 ms	92.95 %	16.04 %	14.10
					4	11066	1.61 ms	91.80 %	9.69 %	11.21
	400	8	17845	33.46 ms	.5	23499	1.77 ms	95.31 %	31.68 %	18.87
					1	21894	1.94 ms	94.81 %	22.69 %	17.26
					2	20180	2.31 ms	94.03 %	13.09 %	14.50
					4	19062	3.09 ms	92.85 %	6.82 %	10.83
	700	14	55458	150.16 ms	.5	71718	6.26 ms	96.77 %	29.32 %	23.98
					1	67278	7.18 ms	96.35 %	21.31 %	20.93
					2	61629	8.65 ms	95.64 %	11.13 %	17.36
					4	58557	12.39 ms	94.44 %	5.59 %	12.12

TABLE A21: Full results of mesh remodelling for $\sigma = 0.25$ - Eppler 376 airfoil
Average of thirty optimisation scenarios

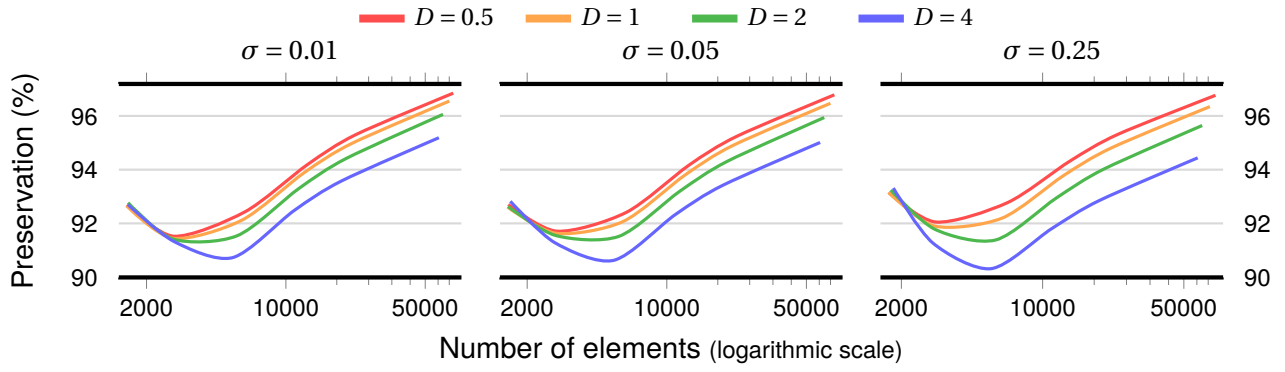


FIGURE A29: Element preservation results using mesh remodelling - Eppler 376 airfoil
Average of thirty optimisation scenarios

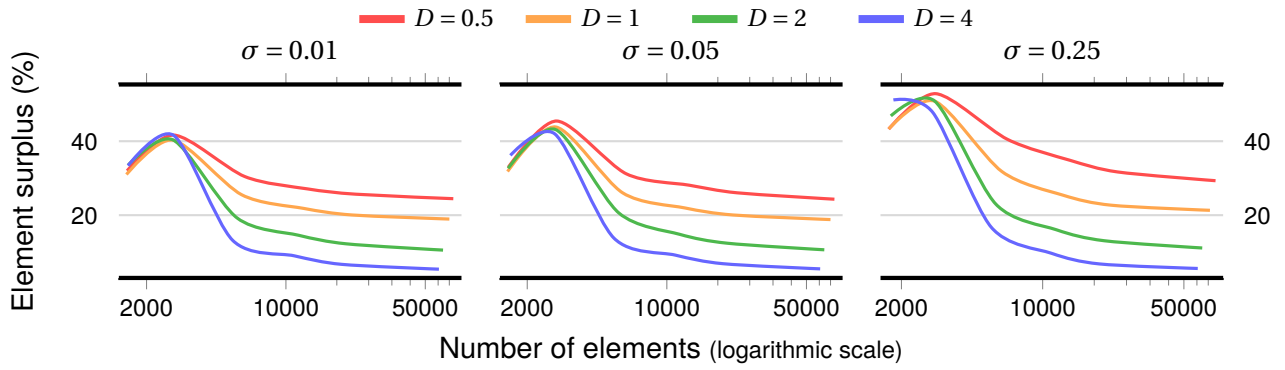


FIGURE A30: Element surplus results on meshes from mesh remodelling - Eppler 376 airfoil
Average of thirty optimisation scenarios

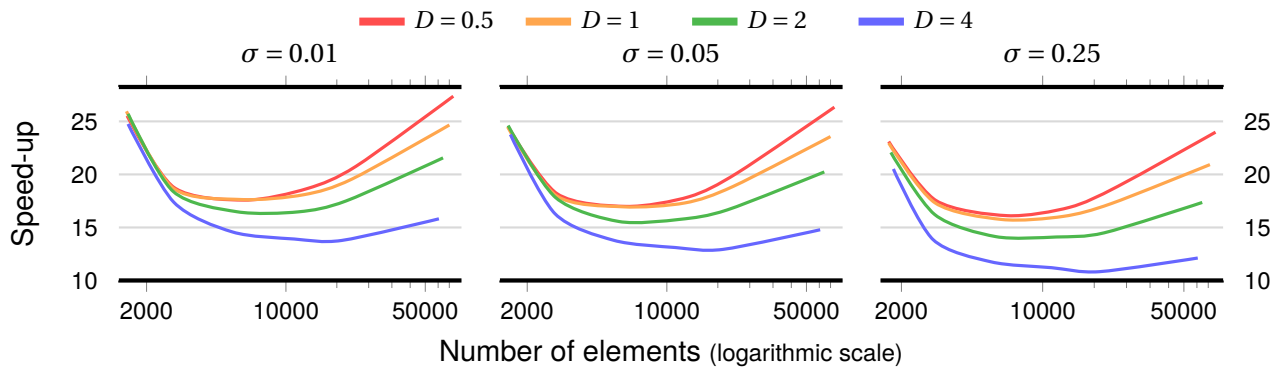


FIGURE A31: Speed-up results by mesh remodelling - Eppler 376 airfoil
Average of thirty optimisation scenarios

A.3.8 Eppler 545

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1175	1.79 ms	.5	1286	0.05 ms	91.41 %	9.46 %	32.61
					1	1288	0.05 ms	91.42 %	9.61 %	32.55
					2	1299	0.05 ms	91.50 %	10.59 %	33.19
					4	1298	0.05 ms	91.59 %	10.47 %	34.17
	100	2	1832	3.38 ms	.5	2338	0.14 ms	90.42 %	27.63 %	24.88
					1	2340	0.13 ms	90.46 %	27.72 %	25.31
					2	2327	0.13 ms	90.39 %	27.04 %	25.33
					4	2329	0.13 ms	90.52 %	27.16 %	25.86
	200	4	4635	9.43 ms	.5	5061	0.35 ms	91.13 %	9.19 %	26.68
					1	5079	0.35 ms	91.16 %	9.59 %	26.70
					2	5118	0.37 ms	91.19 %	10.42 %	25.70
					4	5019	0.37 ms	90.99 %	8.30 %	25.39
	300	6	9838	20.09 ms	.5	10481	0.73 ms	93.31 %	6.54 %	27.60
					1	10513	0.73 ms	93.33 %	6.86 %	27.41
					2	10530	0.78 ms	93.26 %	7.04 %	25.86
					4	10373	0.82 ms	93.03 %	5.45 %	24.53
	400	8	17344	36.17 ms	.5	18260	1.28 ms	94.67 %	5.28 %	28.27
					1	18295	1.32 ms	94.65 %	5.48 %	27.32
					2	18304	1.40 ms	94.55 %	5.54 %	25.76
					4	18062	1.55 ms	94.27 %	4.14 %	23.27
	700	14	53884	155.74 ms	.5	56146	3.83 ms	96.61 %	4.20 %	40.65
					1	56228	4.08 ms	96.56 %	4.35 %	38.16
					2	56051	4.59 ms	96.41 %	4.02 %	33.91
					4	55541	5.57 ms	96.08 %	3.07 %	27.96

TABLE A22: Full results of mesh remodelling for $\sigma = 0.01$ - Eppler 545 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1170	1.78 ms	.5	1403	0.06 ms	91.95 %	19.90 %	30.78
					1	1403	0.06 ms	91.94 %	19.89 %	30.31
					2	1401	0.06 ms	91.98 %	19.75 %	31.16
					4	1387	0.05 ms	91.97 %	18.52 %	32.31
	100	2	1832	3.37 ms	.5	2398	0.14 ms	90.62 %	30.87 %	24.20
					1	2419	0.14 ms	90.71 %	32.02 %	23.99
					2	2444	0.14 ms	90.77 %	33.37 %	23.74
					4	2413	0.14 ms	90.75 %	31.66 %	23.83
	200	4	4635	9.29 ms	.5	5191	0.37 ms	91.26 %	11.98 %	24.87
					1	5204	0.38 ms	91.30 %	12.27 %	24.71
					2	5219	0.39 ms	91.21 %	12.59 %	23.80
					4	5078	0.42 ms	90.88 %	9.55 %	22.28
	300	6	9838	19.59 ms	.5	10684	0.77 ms	93.36 %	8.60 %	25.32
					1	10707	0.77 ms	93.35 %	8.84 %	25.30
					2	10668	0.83 ms	93.20 %	8.44 %	23.58
					4	10451	0.92 ms	92.85 %	6.23 %	21.33
	400	8	17342	35.98 ms	.5	18661	1.35 ms	94.68 %	7.61 %	26.56
					1	18670	1.44 ms	94.63 %	7.66 %	25.05
					2	18483	1.54 ms	94.46 %	6.58 %	23.31
					4	18153	1.72 ms	94.08 %	4.68 %	20.90
	700	14	53880	155.27 ms	.5	57379	4.16 ms	96.58 %	6.49 %	37.33
					1	57488	4.55 ms	96.49 %	6.70 %	34.13
					2	56548	5.19 ms	96.29 %	4.95 %	29.94
					4	55799	6.40 ms	95.87 %	3.56 %	24.25

TABLE A23: Full results of mesh remodelling for $\sigma = 0.05$ - Eppler 545 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1168	1.77 ms	.5	1571	0.07 ms	92.58 %	34.53 %	26.10
					1	1577	0.07 ms	92.63 %	35.07 %	26.03
					2	1631	0.07 ms	92.81 %	39.68 %	25.06
					4	1680	0.07 ms	93.01 %	43.92 %	23.97
	100	2	1832	3.35 ms	.5	2706	0.17 ms	91.48 %	47.69 %	19.77
					1	2695	0.17 ms	91.37 %	47.06 %	19.76
					2	2694	0.18 ms	91.32 %	47.01 %	18.79
					4	2707	0.20 ms	91.12 %	47.75 %	16.76
	200	4	4635	9.01 ms	.5	6004	0.46 ms	92.11 %	29.53 %	19.52
					1	5761	0.49 ms	91.69 %	24.30 %	18.45
					2	5526	0.53 ms	91.10 %	19.21 %	17.07
					4	5279	0.61 ms	90.28 %	13.90 %	14.69
	300	6	9829	19.33 ms	.5	12189	0.97 ms	93.82 %	24.01 %	19.88
					1	11659	1.04 ms	93.42 %	18.62 %	18.63
					2	11109	1.15 ms	92.84 %	13.02 %	16.85
					4	10617	1.40 ms	91.94 %	8.01 %	13.80
	400	8	17325	35.58 ms	.5	21086	1.64 ms	94.93 %	21.71 %	21.75
					1	20235	1.82 ms	94.58 %	16.80 %	19.57
					2	19145	2.14 ms	93.98 %	10.51 %	16.61
					4	18310	2.68 ms	93.07 %	5.68 %	13.27
	700	14	53838	153.88 ms	.5	64501	5.75 ms	96.57 %	19.81 %	26.75
					1	62186	6.62 ms	96.26 %	15.51 %	23.24
					2	58572	7.93 ms	95.70 %	8.79 %	19.41
					4	56245	10.76 ms	94.77 %	4.47 %	14.30

TABLE A24: Full results of mesh remodelling for $\sigma = 0.25$ - Eppler 545 airfoil
Average of thirty optimisation scenarios

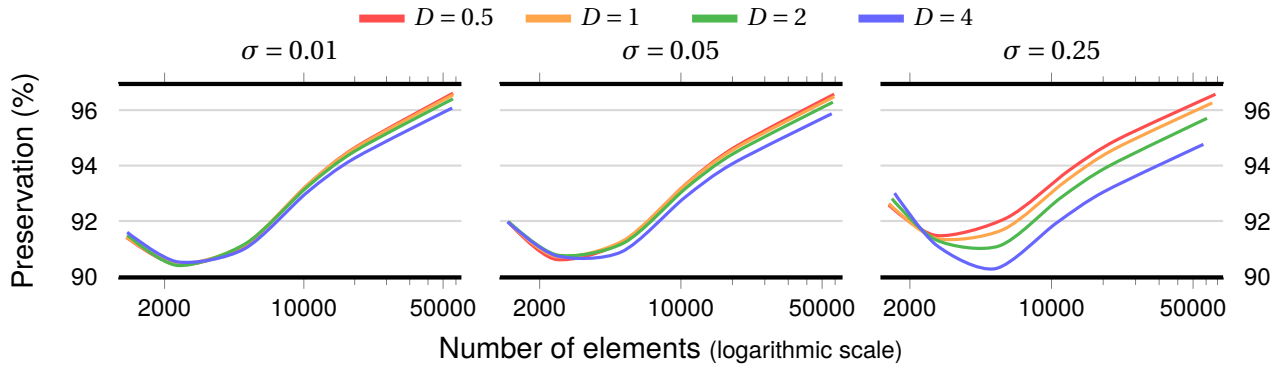


FIGURE A32: Element preservation results using mesh remodelling - Eppler 545 airfoil
Average of thirty optimisation scenarios

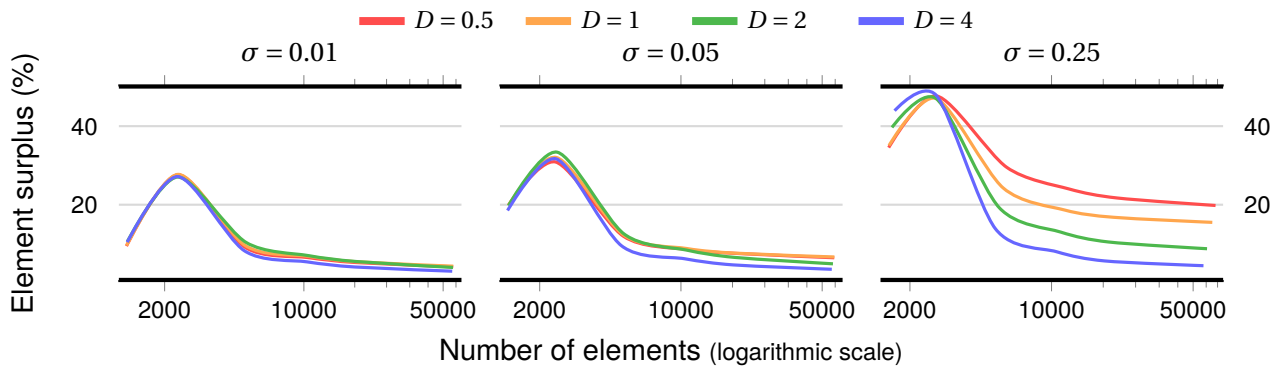


FIGURE A33: Element surplus results on meshes from mesh remodelling - Eppler 545 airfoil
Average of thirty optimisation scenarios

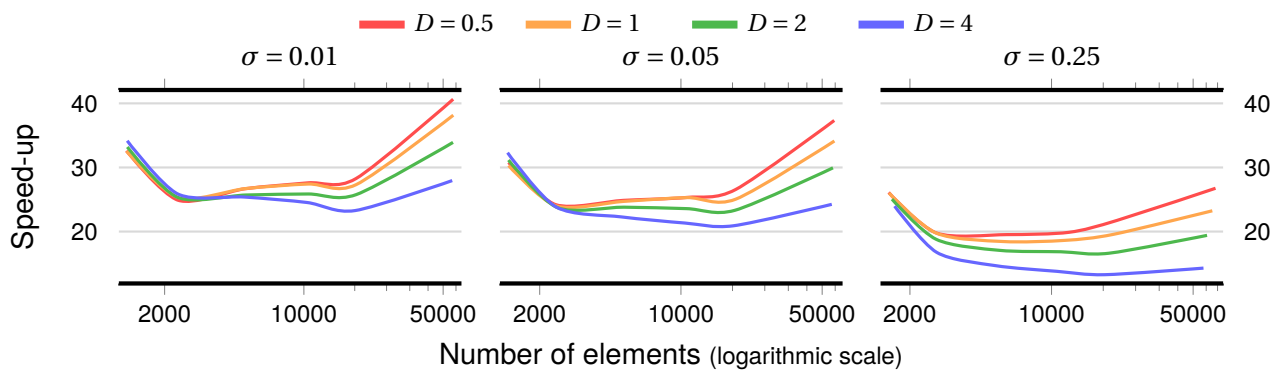


FIGURE A34: Speed-up results by mesh remodelling - Eppler 545 airfoil
Average of thirty optimisation scenarios

A.3.9 Gottingen 702

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.01	50	1	1122	1.72 ms	.5	1338	0.06 ms	91.61 %	19.24 %	30.37
					1	1343	0.06 ms	91.64 %	19.64 %	30.38
					2	1342	0.06 ms	91.67 %	19.54 %	31.04
					4	1326	0.05 ms	91.74 %	18.14 %	32.30
	100	2	1891	3.51 ms	.5	2354	0.14 ms	90.46 %	24.52 %	24.44
					1	2336	0.14 ms	90.40 %	23.54 %	24.51
					2	2364	0.14 ms	90.54 %	25.05 %	24.64
					4	2351	0.14 ms	90.55 %	24.35 %	24.59
	200	4	4598	9.63 ms	.5	5224	0.39 ms	91.33 %	13.61 %	24.89
					1	5220	0.39 ms	91.31 %	13.52 %	24.71
					2	5178	0.41 ms	91.15 %	12.61 %	23.72
					4	5045	0.43 ms	90.83 %	9.72 %	22.46
	300	6	9724	20.76 ms	.5	10833	0.83 ms	93.44 %	11.41 %	24.86
					1	10744	0.83 ms	93.37 %	10.49 %	24.99
					2	10623	0.89 ms	93.18 %	9.24 %	23.37
					4	10365	0.95 ms	92.81 %	6.59 %	21.84
	400	8	17197	36.76 ms	.5	18899	1.52 ms	94.76 %	9.90 %	24.24
					1	18702	1.58 ms	94.66 %	8.75 %	23.31
					2	18427	1.70 ms	94.44 %	7.15 %	21.61
					4	18010	1.85 ms	94.03 %	4.73 %	19.89
	700	14	53404	157.23 ms	.5	57909	4.97 ms	96.63 %	8.43 %	31.61
					1	57364	5.35 ms	96.51 %	7.41 %	29.38
					2	56478	5.99 ms	96.26 %	5.76 %	26.23
					4	55401	7.20 ms	95.82 %	3.74 %	21.85

TABLE A25: Full results of mesh remodelling for $\sigma = 0.01$ - Gottingen 702 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.05	50	1	1122	1.72 ms	.5	1390	0.06 ms	91.92 %	23.89 %	29.21
					1	1390	0.06 ms	91.96 %	23.90 %	29.65
					2	1404	0.06 ms	92.09 %	25.15 %	30.10
					4	1367	0.06 ms	91.93 %	21.91 %	30.80
	100	2	1892	3.51 ms	.5	2433	0.15 ms	90.75 %	28.64 %	23.93
					1	2448	0.15 ms	90.82 %	29.43 %	24.14
					2	2451	0.15 ms	90.82 %	29.58 %	23.97
					4	2382	0.15 ms	90.60 %	25.91 %	23.40
	200	4	4598	9.59 ms	.5	5326	0.40 ms	91.40 %	15.83 %	23.79
					1	5287	0.41 ms	91.32 %	14.98 %	23.46
					2	5244	0.42 ms	91.16 %	14.06 %	22.76
					4	5067	0.45 ms	90.74 %	10.20 %	21.22
	300	6	9724	20.47 ms	.5	11021	0.85 ms	93.49 %	13.34 %	23.95
					1	10911	0.87 ms	93.39 %	12.21 %	23.59
					2	10719	0.93 ms	93.14 %	10.23 %	21.95
					4	10410	1.01 ms	92.70 %	7.06 %	20.35
	400	8	17197	36.71 ms	.5	19167	1.57 ms	94.78 %	11.46 %	23.36
					1	18933	1.64 ms	94.65 %	10.10 %	22.35
					2	18579	1.76 ms	94.38 %	8.04 %	20.80
					4	18073	1.98 ms	93.92 %	5.10 %	18.50
	700	14	53397	156.93 ms	.5	58808	5.18 ms	96.62 %	10.13 %	30.29
					1	58120	5.66 ms	96.47 %	8.84 %	27.73
					2	56917	6.32 ms	96.20 %	6.59 %	24.82
					4	55583	7.72 ms	95.70 %	4.09 %	20.33

TABLE A26: Full results of mesh remodelling for $\sigma = 0.05$ - Gottingen 702 airfoil
Average of thirty optimisation scenarios

σ	I	G	Generation		D	Remodelling				
			# Tri.	Time		# Tri.	Time	Preserv.	+ Tri.	Sp.-up
.25	50	1	1121	1.72 ms	.5	1543	0.07 ms	92.55 %	37.72 %	25.41
					1	1541	0.07 ms	92.55 %	37.55 %	25.34
					2	1600	0.07 ms	92.75 %	42.79 %	25.10
					4	1619	0.07 ms	92.83 %	44.47 %	23.83
	100	2	1884	3.48 ms	.5	2673	0.17 ms	91.39 %	41.86 %	20.62
					1	2655	0.17 ms	91.28 %	40.93 %	20.22
					2	2644	0.18 ms	91.19 %	40.36 %	19.40
					4	2621	0.20 ms	90.88 %	39.13 %	17.48
	200	4	4593	9.31 ms	.5	5964	0.49 ms	92.06 %	29.85 %	19.16
					1	5720	0.49 ms	91.65 %	24.52 %	18.84
					2	5442	0.54 ms	91.02 %	18.46 %	17.35
					4	5228	0.62 ms	90.21 %	13.81 %	15.01
	300	6	9715	19.76 ms	.5	12115	1.02 ms	93.81 %	24.70 %	19.45
					1	11573	1.09 ms	93.39 %	19.13 %	18.06
					2	10962	1.20 ms	92.78 %	12.84 %	16.42
					4	10509	1.43 ms	91.89 %	8.17 %	13.82
	400	8	17179	36.42 ms	.5	20964	1.80 ms	94.92 %	22.03 %	20.23
					1	20060	2.01 ms	94.54 %	16.77 %	18.09
					2	18906	2.28 ms	93.95 %	10.05 %	16.01
					4	18156	2.81 ms	93.04 %	5.68 %	12.95
	700	14	53353	156.36 ms	.5	64139	6.59 ms	96.58 %	20.22 %	23.74
					1	61691	7.51 ms	96.25 %	15.63 %	20.83
					2	57769	8.64 ms	95.69 %	8.28 %	18.09
					4	55778	11.45 ms	94.75 %	4.55 %	13.65

TABLE A27: Full results of mesh remodelling for $\sigma = 0.25$ - Gottingen 702 airfoil
Average of thirty optimisation scenarios

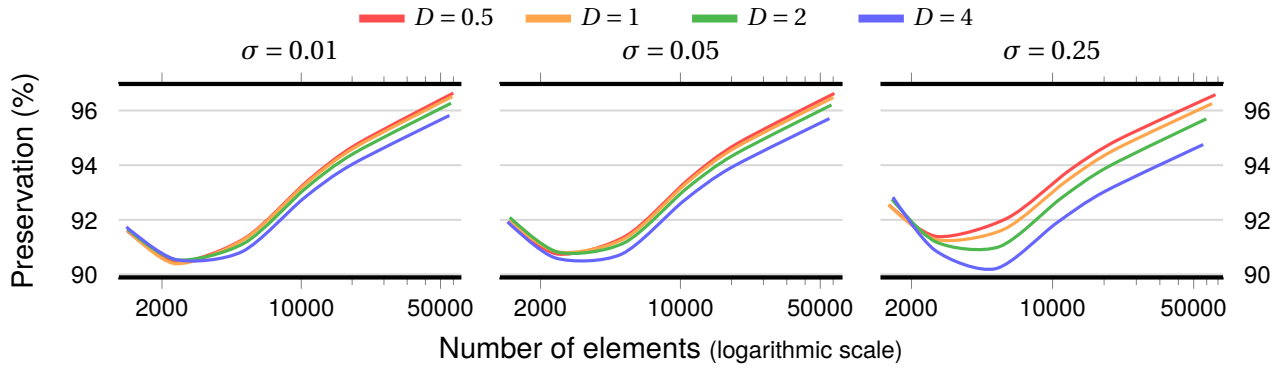


FIGURE A35: Element preservation results using mesh remodelling - Gottingen 702 airfoil
Average of thirty optimisation scenarios

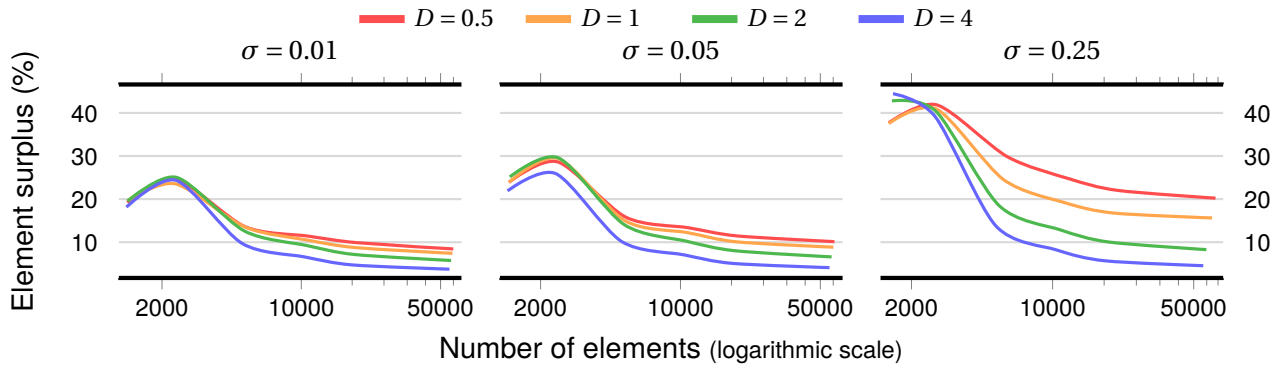


FIGURE A36: Element surplus results on meshes from mesh remodelling - Gottingen 702 airfoil
Average of thirty optimisation scenarios

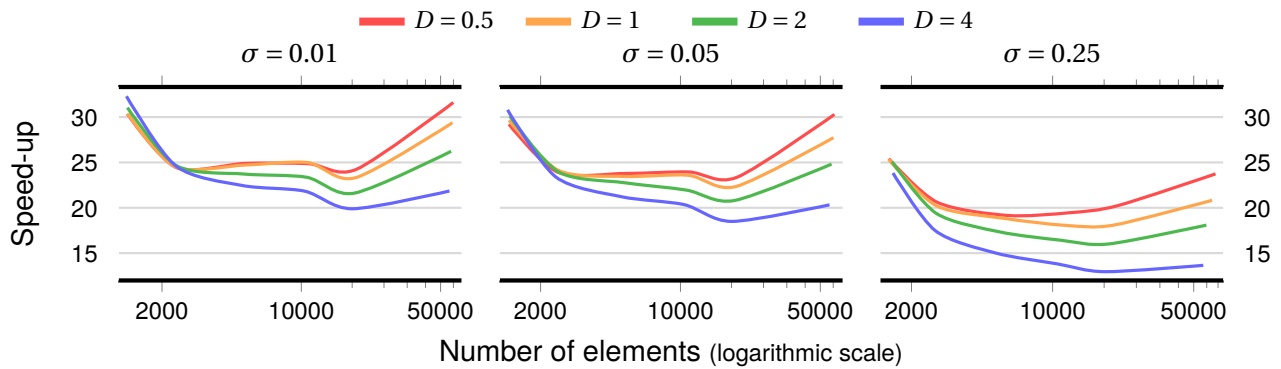


FIGURE A37: Speed-up results by mesh remodelling - Gottingen 702 airfoil
Average of thirty optimisation scenarios