

Deformation Aware Image Compression Supplementary Material

1. Comparison between error criteria

The table below extends the Table of Fig. 4 in the paper. It reports the distortion of all the compressed images appearing in the paper, as measured by various dissimilarity and similarity criteria.

		Similarity scores (higher = similar)						Dissimilarity scores (lower = similar)			
		SSIM	MS-SSIM	CW-SSIM	IFC	VIF	FSIM	VGG _{2,2}	VGG _{5,4}	SSD	DASSD
Lizard (Fig. 1)	Global thr.	0.404	0.735	0.877	1.084	0.104	0.828	1.073	6.45	4169	2267
	Our	0.408	0.686	0.832	0.88	0.067	0.816	1.315	5.391	4829	1687
Mandala (Fig. 2)	BPG	0.729	0.816	0.883	1.25	0.179	0.702	0.717	4.617	817	606
	Our	0.69	0.771	0.746	0.894	0.108	0.73	0.806	4.079	1038	451
Pattern (Fig. 3)	WebP	0.644	0.696	0.455	1.42	0.113	0.785	4.382	17.215	4120	1886
	Our	0.764	0.795	0.518	1.875	0.136	0.824	3.124	8.353	3240	987
Houses (Fig. 4)	JPEG 2000	0.696	0.837	0.999	1.216	0.124	0.857	0.173	2.023	545	328
	Our	0.685	0.810	0.996	1.014	0.104	0.848	0.252	2.347	639	284
Wings (Fig. 7)	JPEG 2000	0.775	0.873	0.867	1.018	0.174	0.861	0.089	0.784	551	339
	Our	0.765	0.878	0.848	0.979	0.139	0.874	0.092	0.609	701	283
Woman (Fig. 8)	WebP	0.923	0.896	0.903	0.755	0.282	0.897	0.083	1.562	123	113
	Our	0.907	0.864	0.894	0.472	0.169	0.862	0.128	1.553	189	102
Tile (Fig. 9)	JPEG	0.575	0.852	0.947	1.431	0.201	0.779	0.353	4.456	351	239
	Our	0.572	0.846	0.926	1.335	0.168	0.783	0.369	3.907	427	188
Dry Soil (Fig. 10)	Global thr.	0.887	0.823	0.985	1.536	0.192	0.720	0.889	5.564	1069	733
	Our	0.865	0.820	0.961	1.286	0.139	0.744	0.949	5.461	1313	688
Houses (Fig. 12)	JPEG 2000	0.851	0.954	0.99	3.757	0.415	0.956	0.043	0.422	154	104
	Our	0.85	0.955	0.989	3.56	0.386	0.953	0.044	0.316	176	91
Leaf (Fig. 13)	Subband thr.	0.942	0.89	0.978	1.914	0.233	0.801	0.119	0.996	386	305
	Our	0.927	0.845	0.958	1.505	0.16	0.799	0.206	1.369	502	264
NYSE (Fig. 14)	JPEG 2000	0.803	0.956	0.98	2.2	0.359	0.938	0.064	0.772	152	115
	Our	0.72	0.91	0.963	1.394	0.224	0.884	0.153	0.989	348	93
Girl (Fig. 15)	Subband thr.	0.926	0.951	0.973	1.251	0.433	0.942	0.029	0.739	56	48
	Our	0.894	0.919	0.945	0.699	0.228	0.911	0.082	0.755	143	42

Table 1. **Comparison between error criteria.** We measured the similarity between each of the compressed images presented in the paper, and the corresponding input images, according to various fidelity criteria. For each image, we indicate in bold which compression result has been ranked more similar: our deformation aware compression, or the regular compression. As can be seen, most error criteria tend to rank our compression results as less similar to the input image. This is despite the fact that our results preserve more visual information.