

## Similarity-invariant Sketch-based Image Retrieval in Large Databases









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Method TENSOR [ CS (Ours)



Comparison of % of true positive retrievals in top 20 on ETHZ extended shape dataset [5]

[1]	Arbela
hie	rarchi
[2]	Zhu, (
ln:	ICCV
[3]	Eitz, I
ima	age re
on	Sketc
[4]	Cao,
ba	sed in
[5]	Schin
	aaadi





	Top 5			Top 10		Top 25			Top 50			Top 100			
	В	W	А	В	W	А	В	W	А	В	W	А	В	W	А
]	30.8	7.5	14.7	30	7.1	13.7	24.8	7	12.9	20.8	7	12.3	16.5	5.8	10.2
	36.7	20.8	23.4	34.2	17.9	21.5	30	15.3	19.5	27	13.8	17.5	22.2	11.2	14.8
	50	11.7	26.1	42.1	10.8	22.9	33.5	7.8	18.5	27.8	5.7	15	23.1	5.1	12.9

 

 CS+GC (Ours)
 80.8
 42.5
 60.8
 72.5
 38.3
 53.6
 54.7
 29.3
 39.5
 40.3
 20.7
 28.5
 31.8
 16.3
 22.2

Precision (% of true positives) at different ranks on a dataset of 1.2 million images. B: Best, W: Worst, A: Average performances are computed among sketches for each category and then averaged. CS+GC and CS indicate the performances with and without geometric verification respectively.

Method	Oı	ETHZ		
	Best	Worst	Avg	Models
TENSOR [3]	20	8.6	13.8	13.6
EI [4]	49.3	5	23.5	27.9
CS (Ours)	51.4	14.3	35.3	33.6
CS+GC (Ours)	<b>53.6</b>	<b>28.6</b>	38.8	49.3

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