

## Performance Evaluation

### MP.7 Different Detectors and number of keypoints detected

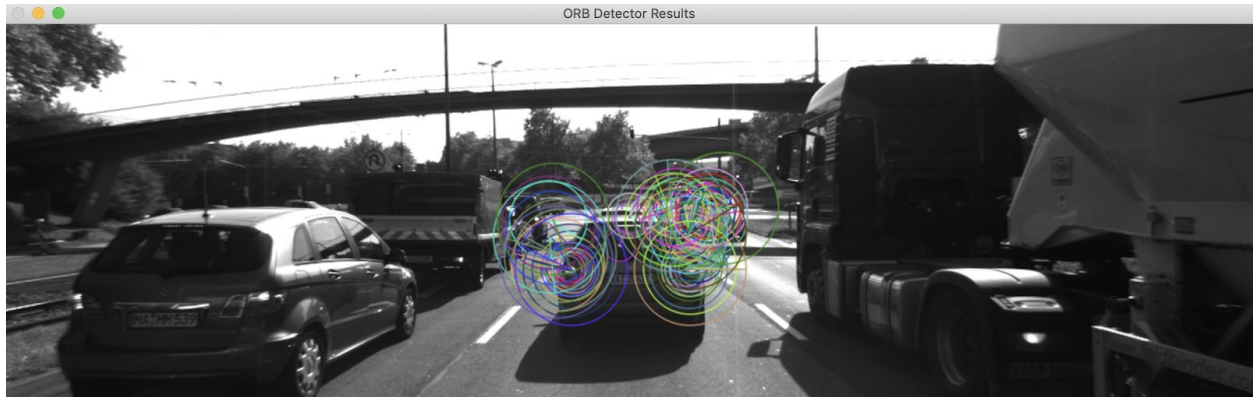
Image Index	0	1	2	3	4	5	6	7	8	9	Average
AKAZE	166	157	161	155	163	164	173	175	177	179	<b>167</b>
BRISK	264	282	282	277	297	279	289	272	266	254	<b>276.2</b>
FAST	149	152	150	155	149	149	156	150	138	143	<b>149.1</b>
HARRIS	0	0	0	0	0	0	0	0	0	0	<b>0</b>
ORB	92	102	106	113	109	125	130	129	127	128	<b>116.1</b>
SHITOMASI	125	118	123	120	120	113	114	123	111	112	<b>117.9</b>
SIFT	138	132	124	137	134	140	137	148	159	137	<b>138.6</b>

BRISK and ORB seems to have the maximum density of keypoints.

### BRISK Detector Results



### ORB Detector Results



#### MP.8 Number of Matches for all Detector/Descriptor combination

	BRIEF	ORB	FREAK	AKAZE	SIFT	BRISK
<b>AKAZE</b>	108	131	126	138	134	126
<b>BRISK</b>	138	162	160	NA	182	138
<b>FAST</b>	97	118	98	NA	118	80
<b>HARRIS</b>	0		0	NA	0	0
<b>ORB</b>	37	67	42	NA	67	60
<b>SHITOMASI</b>	95	106	86	NA	112	84
<b>SIFT</b>	64	NA	65	NA	82	57

#### MP.9 Time for Keypoint Detection

AKAZE	BRISK	FAST	HARRIS	ORB	SHITOMASI	SIFT
79.09	140.145	1.56	13.8	36.16	11.28	72.92

#### Time for Description Extraction

BRISK	ORB	FREAK	AKAZE	SIFT	BRISK
4.09	1.55	27.16	44.5	25.16	1.43

## Final Analysis

**BRISK/SIFT** - For maximum number of matches

**FAST/ORB** - For good enough matches and total time to be very fast.

**SHITOMASI/ORB** - Next best number of matches and the total time to be fast.