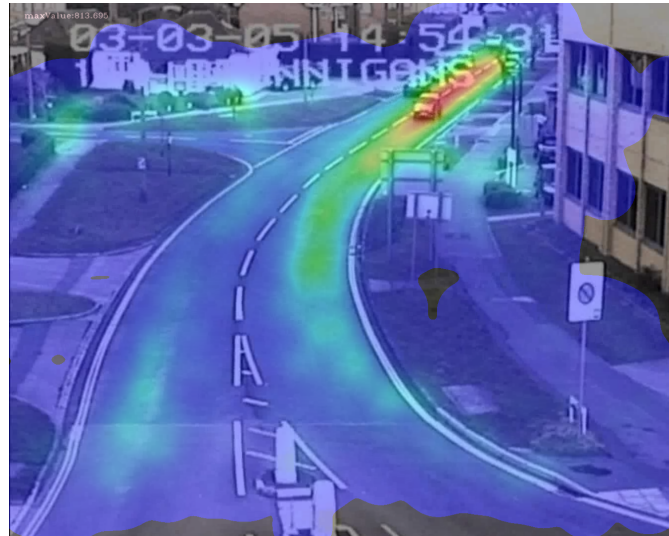


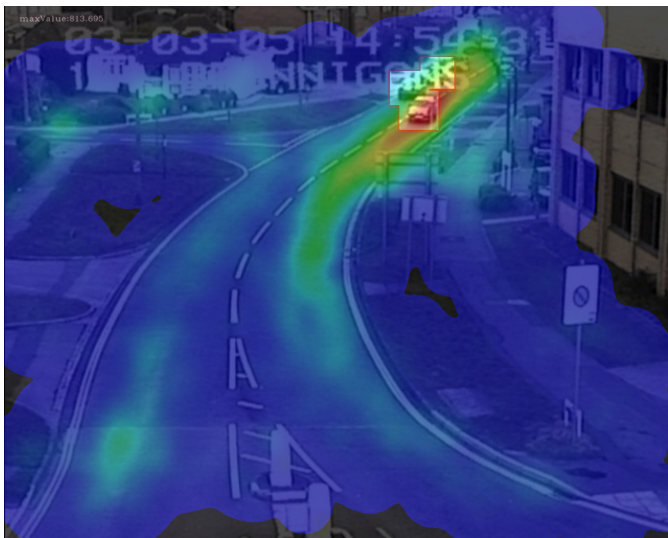
# Evaluation of Attention-Guiding Video Visualization:

Heatmaps: 6000 Frames from i-lids dataset for avss 2007

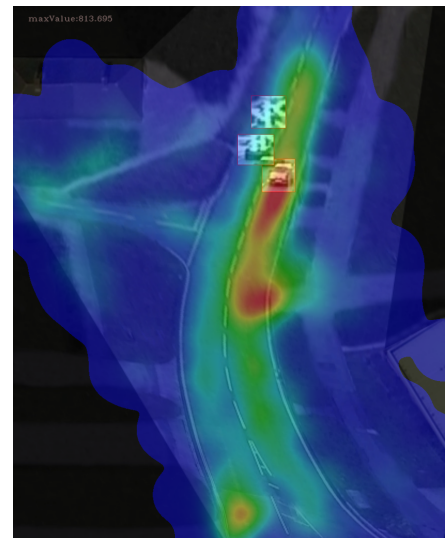
## Normal Video



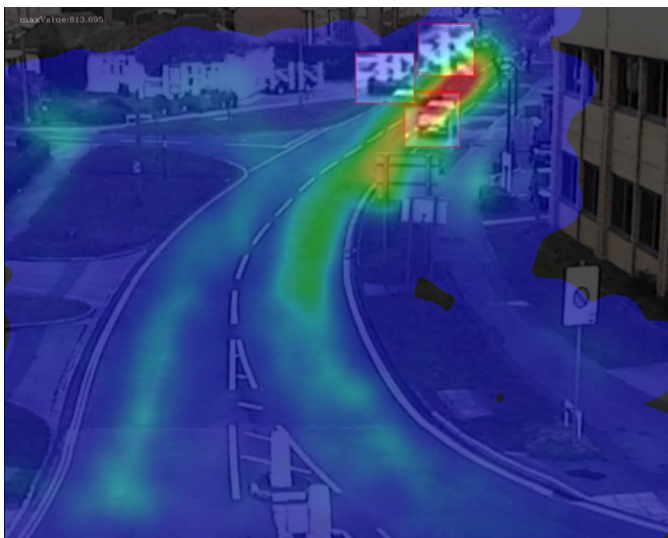
## Bounding Box



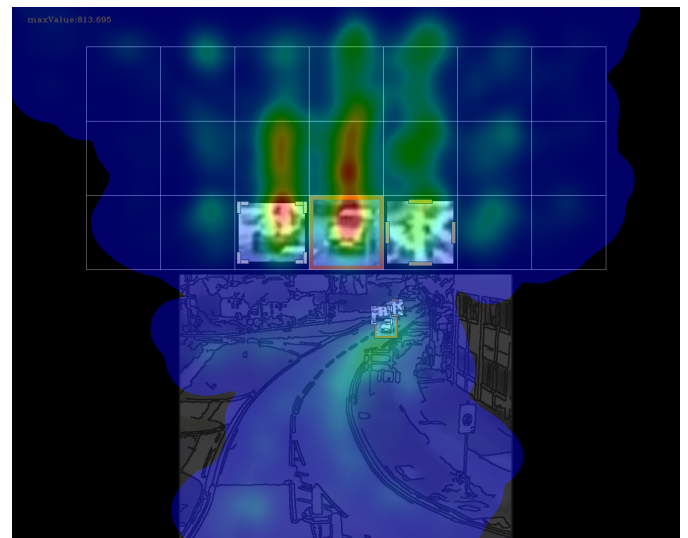
## Top-Down



## Force-Directed



## Grid



# Evaluation of Attention-Guiding Video Visualization

## Questionnaire Results

- **Effort:** How hard did you have to work to accomplish the given task?
- **Frustration:** How insecure, discouraged, irritated, stressed and annoyed were you?
- **Context:** How well could you recognize the spatial context of the objects in the scene?
- **Relations:** How well could you perceive the relations/interactions between objects?
- **Distribution of attention:** How equally could you distribute your attention among the objects?
- **Effectiveness:** How well did you perform in the given task?

<p>Kruskal-Wallis rank sum test data: <b>Effort</b> by group Kruskal-Wallis chi-squared = 27.4351, df = 4, p-value = <b>1.623e-05</b></p> <table border="1"> <thead> <tr> <th></th> <th>MEAN</th> <th>MEDIAN</th> <th>SD</th> </tr> </thead> <tbody> <tr> <td>NORMAL</td> <td>4.96</td> <td>5</td> <td>2.071231518</td> </tr> <tr> <td>BOUNDING BOX</td> <td>3.96</td> <td>4</td> <td>1.428285686</td> </tr> <tr> <td>FORCE-DIRECTED</td> <td>6.6</td> <td>7</td> <td>2.121320344</td> </tr> <tr> <td>TOP-DOWN</td> <td>6.24</td> <td>6</td> <td>1.809235566</td> </tr> <tr> <td>GRID</td> <td>4.36</td> <td>4</td> <td>2.580051679</td> </tr> </tbody> </table>		MEAN	MEDIAN	SD	NORMAL	4.96	5	2.071231518	BOUNDING BOX	3.96	4	1.428285686	FORCE-DIRECTED	6.6	7	2.121320344	TOP-DOWN	6.24	6	1.809235566	GRID	4.36	4	2.580051679	<p>Pairwise comparisons using Wilcoxon rank sum test</p> <table border="1"> <thead> <tr> <th></th> <th>TOP-DOWN</th> <th>GRID</th> <th>FORCE-DIRECTED</th> <th>NORMAL</th> </tr> </thead> <tbody> <tr> <td>GRID</td> <td><b>0.03825</b></td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>FORCE-DIRECTED</td> <td>1.00000</td> <td><b>0.02689</b></td> <td>-</td> <td>-</td> </tr> <tr> <td>NORMAL</td> <td>0.22232</td> <td>1.00000</td> <td>0.08251</td> <td>-</td> </tr> <tr> <td>BOUNDING BOX</td> <td><b>0.00043</b></td> <td>1.00000</td> <td><b>0.00030</b></td> <td>0.86295</td> </tr> </tbody> </table> <p>P value adjustment method: bonferroni</p>		TOP-DOWN	GRID	FORCE-DIRECTED	NORMAL	GRID	<b>0.03825</b>	-	-	-	FORCE-DIRECTED	1.00000	<b>0.02689</b>	-	-	NORMAL	0.22232	1.00000	0.08251	-	BOUNDING BOX	<b>0.00043</b>	1.00000	<b>0.00030</b>	0.86295
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