Gaze Behaviour During a Challenging **Visual Search Task**

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EPSRC

Outline

Scenario

Idea

Experiment

Results

Scenario

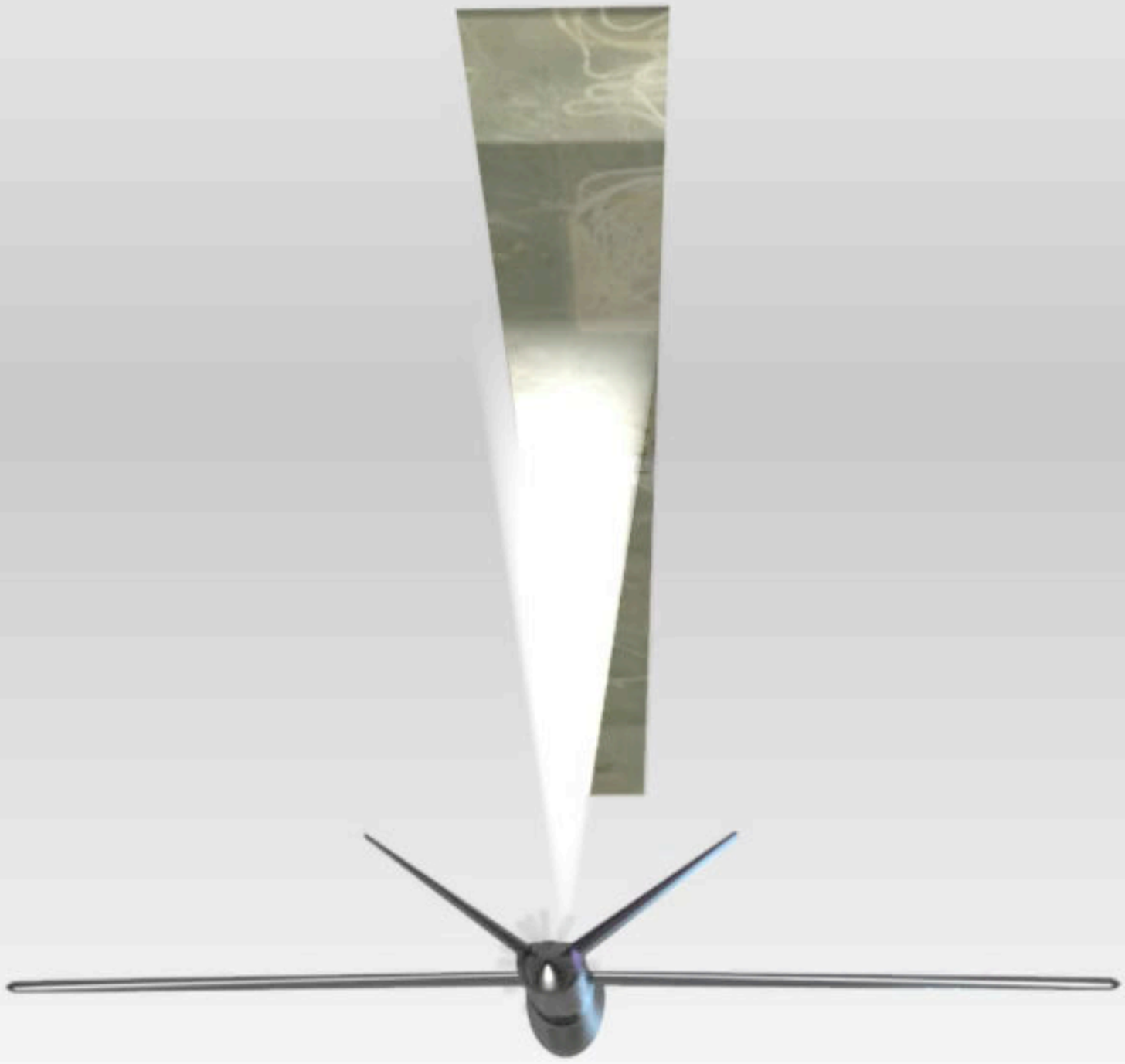
Wilderness Search and Rescue

Aerial Photography

Simulated live imagery from an Unmanned Aerial Vehicle (UAV)

Inconspicuous Targets

Inconspicuous Targets



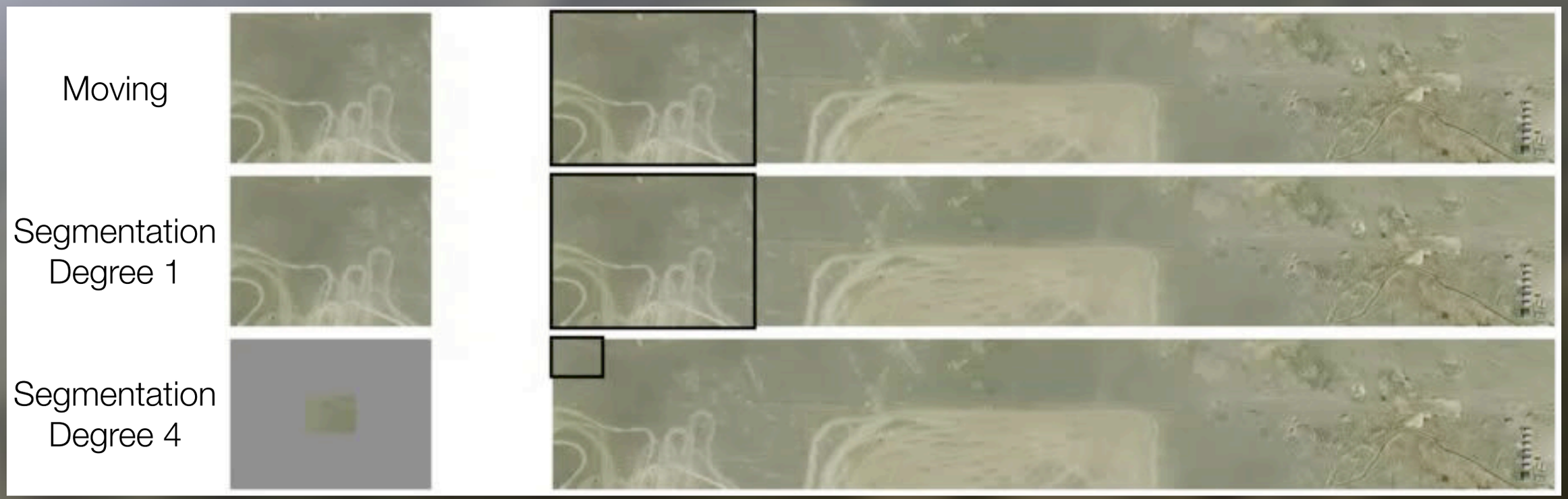
Idea

Static Segmentation of Aerial Photography

Segmentation

Segmentation

Segmentation



Rapid Serial Visual Presentation

Segmentation Degree	**Tile Duration** *(ms)*	**Tile Width** *(Visual Angle °)*
1	3,878	22.6
2	970	11.4
3	431	7.6
4	242	5.7
5	155	4.6
6	108	3.8

Segmentation Degree 1

Segmentation Degree 2

Segmentation Degree 3

Experiment

Identifying Targets

Experimental Setup

Experiment

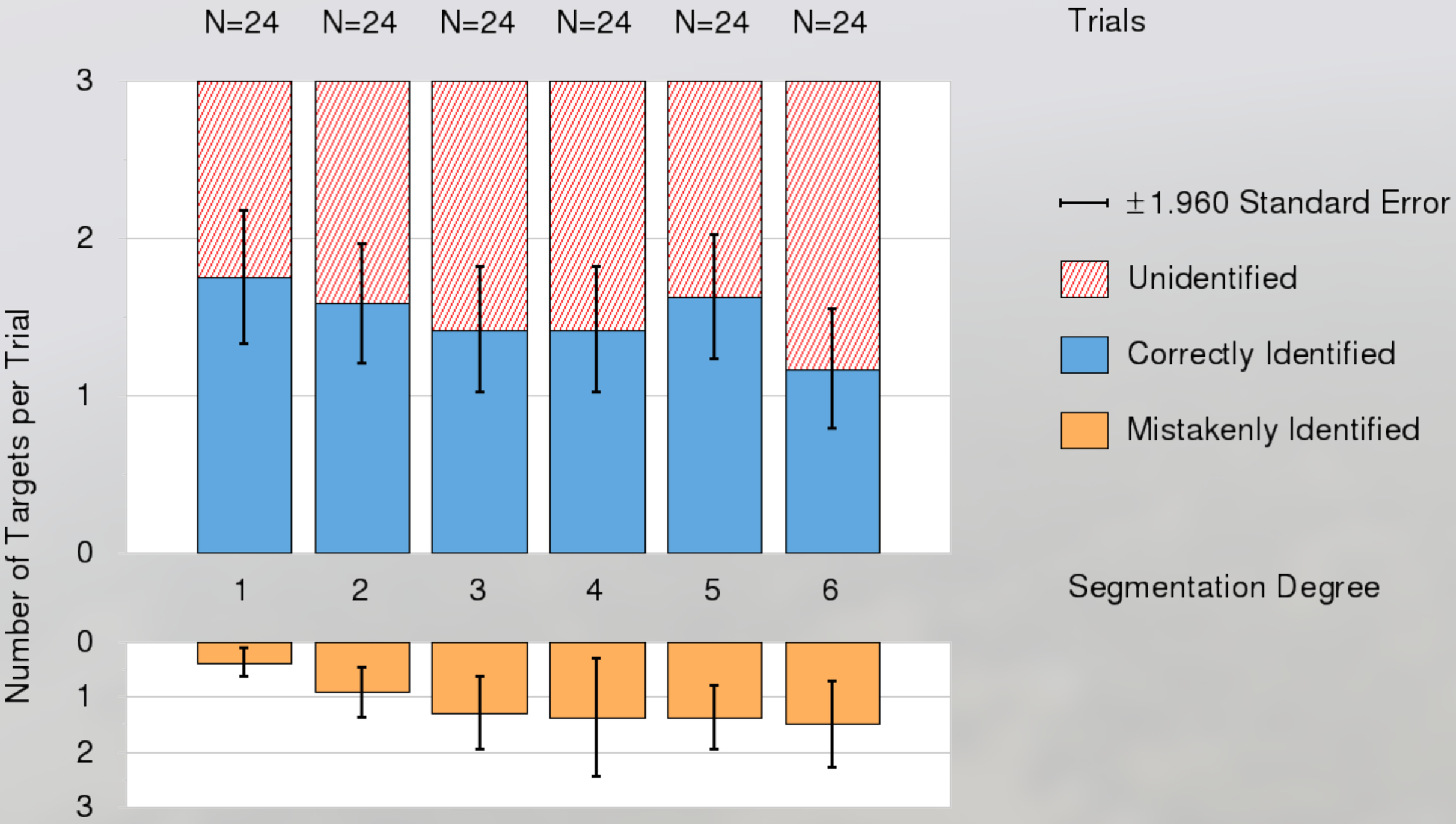
24 Subjects

6 Trials per Subject

520,300 Eye Movement Records

Results

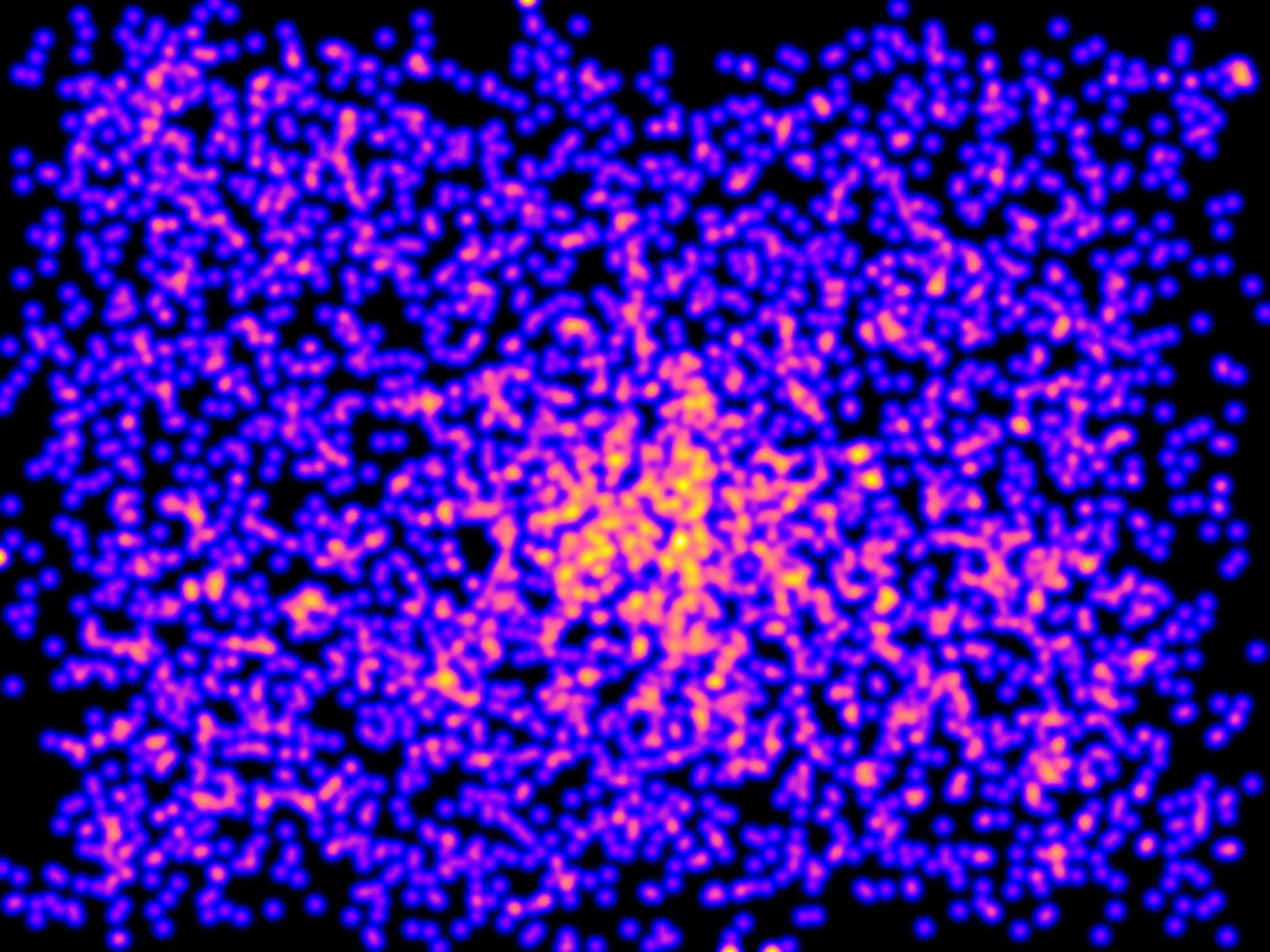
Identification and Eye Movements

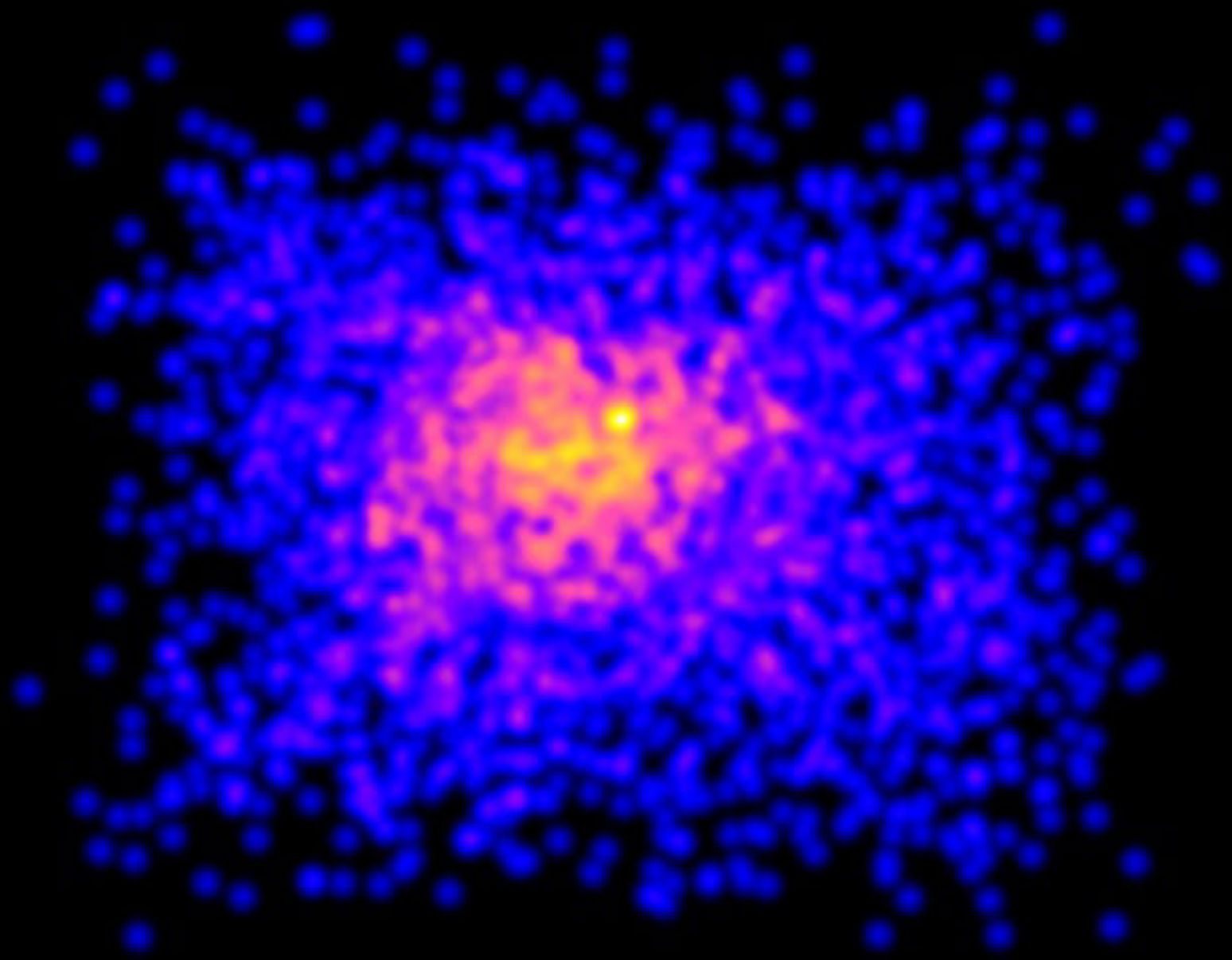


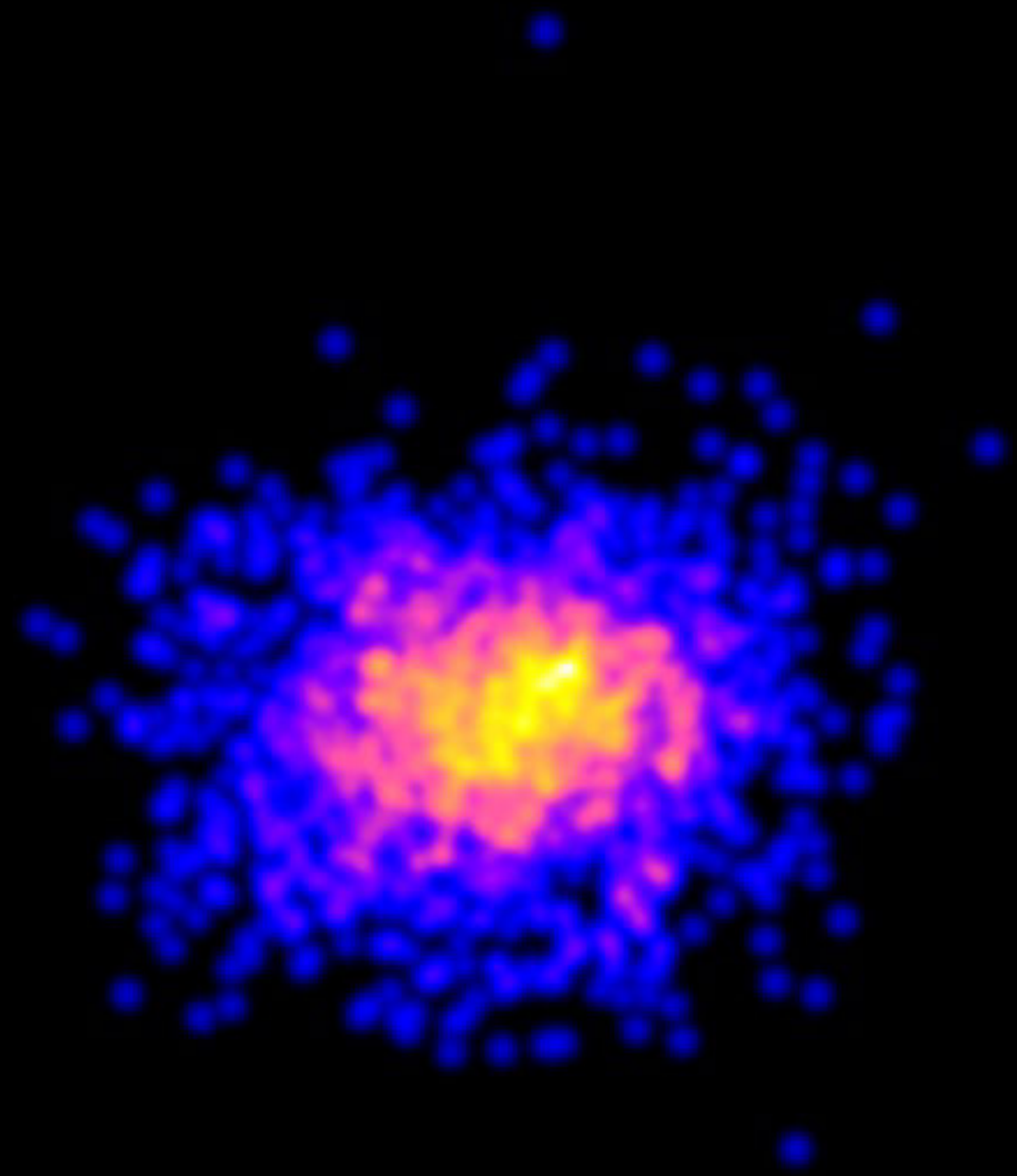
Target Identification Results

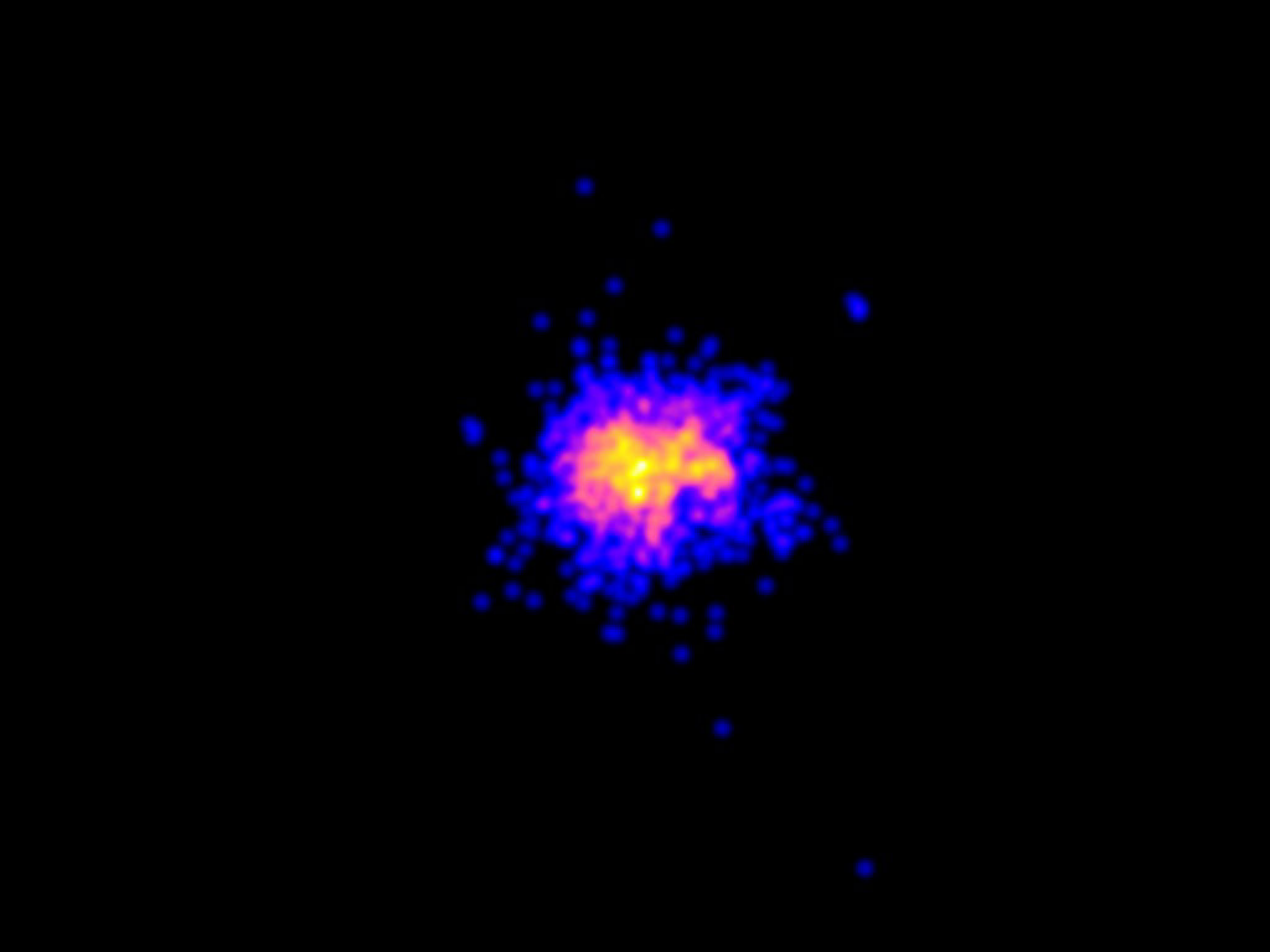
Eye Movements

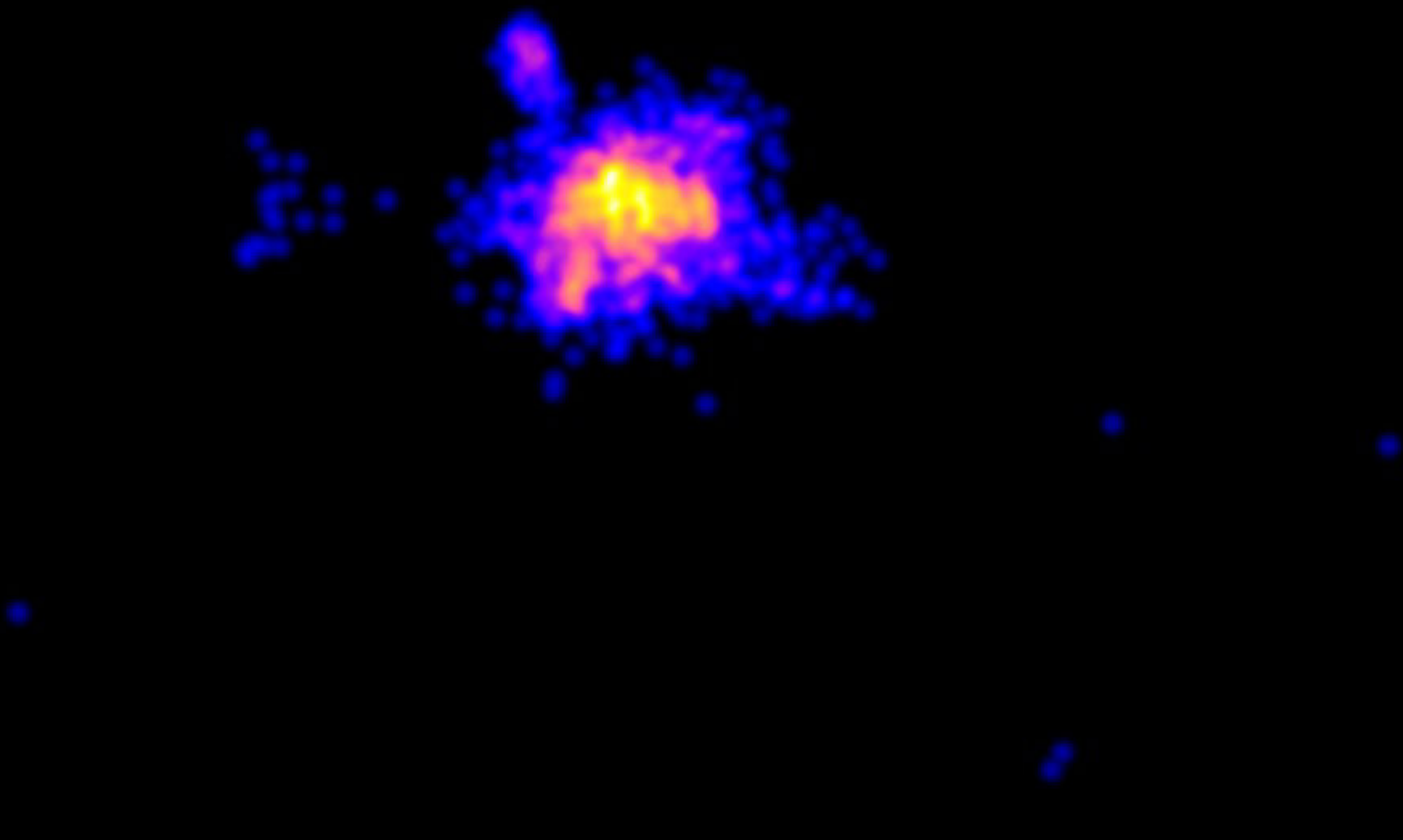
Constancy of Perception?

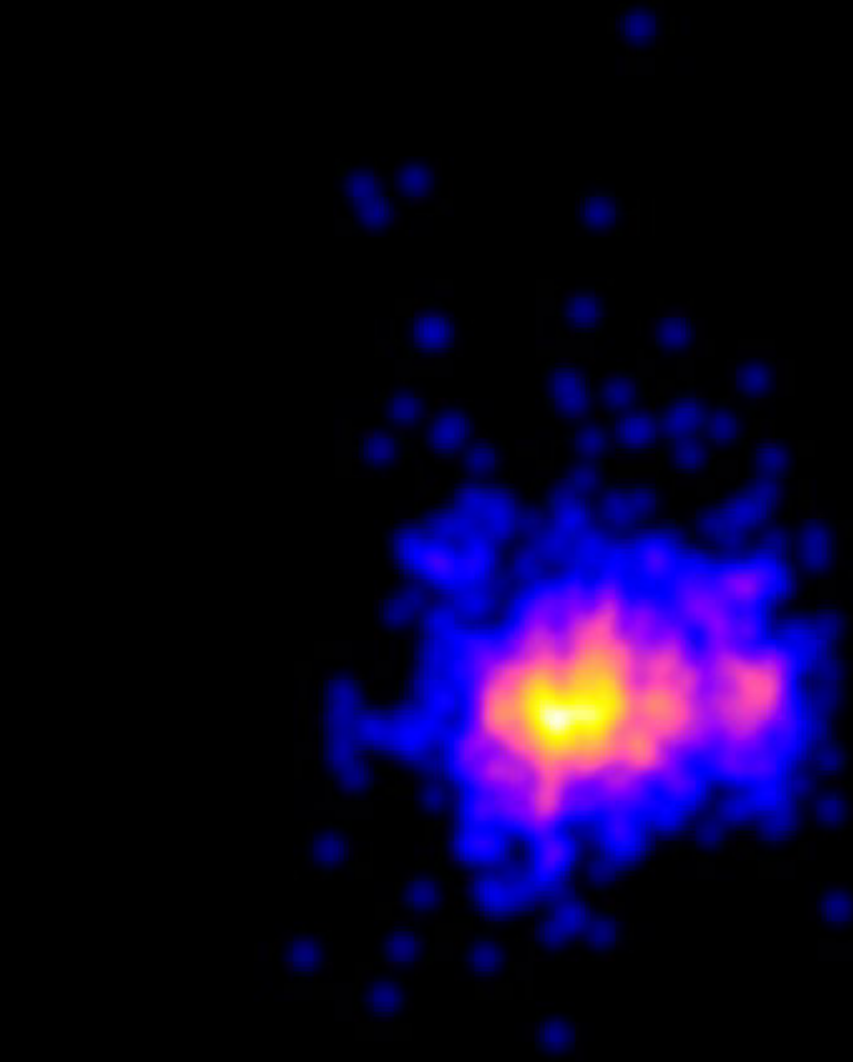












Eye Movements

Segmentation Degree 1

Segmentation Degree 6

Constancy of Perception

Questions

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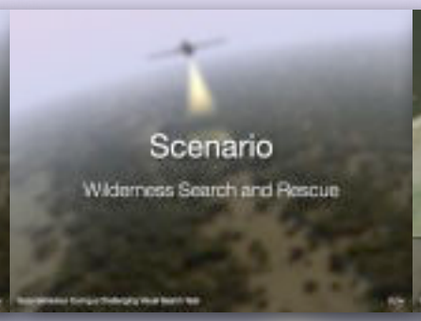

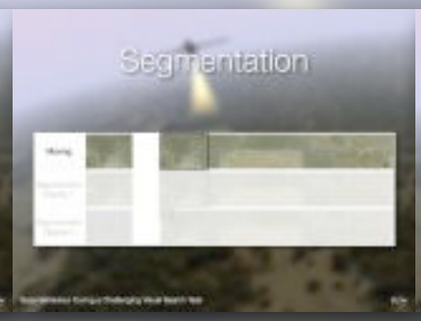

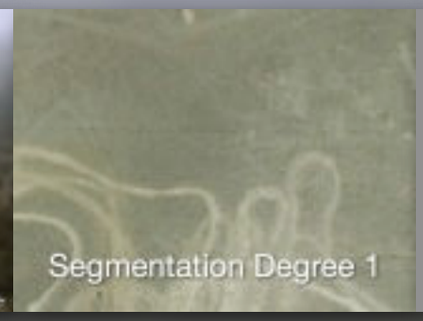

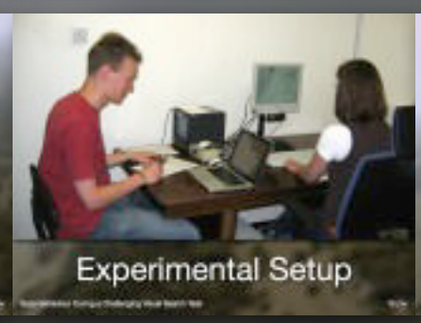

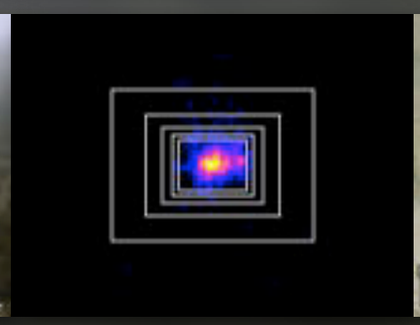

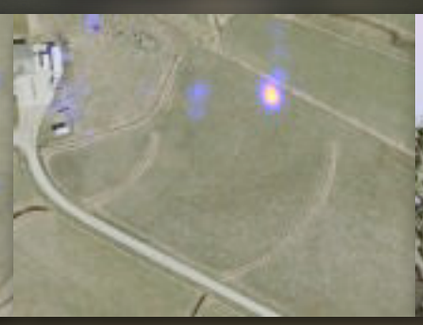

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