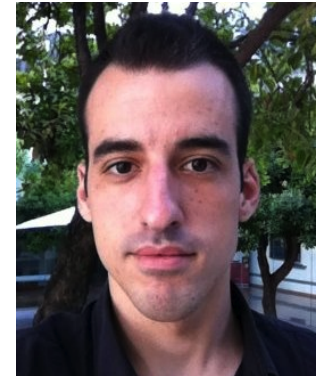


Tri-modal Human Body Segmentation

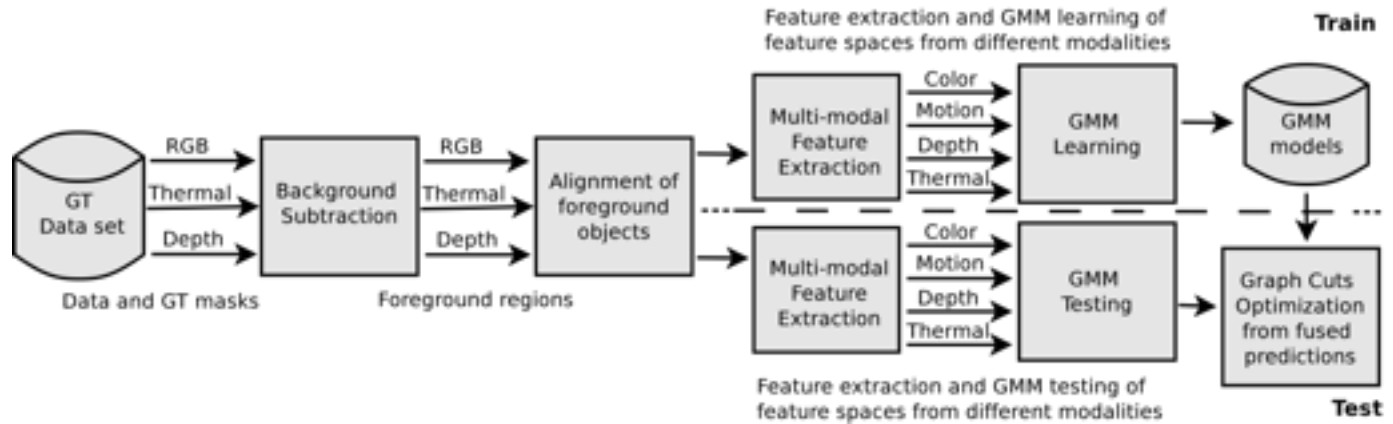
Cristina Palmero, Albert Clapés, Chris Bahnsen,
Andreas Møgelmoose

Advisors: Sergio Escalera, Tomas B. Moeslund

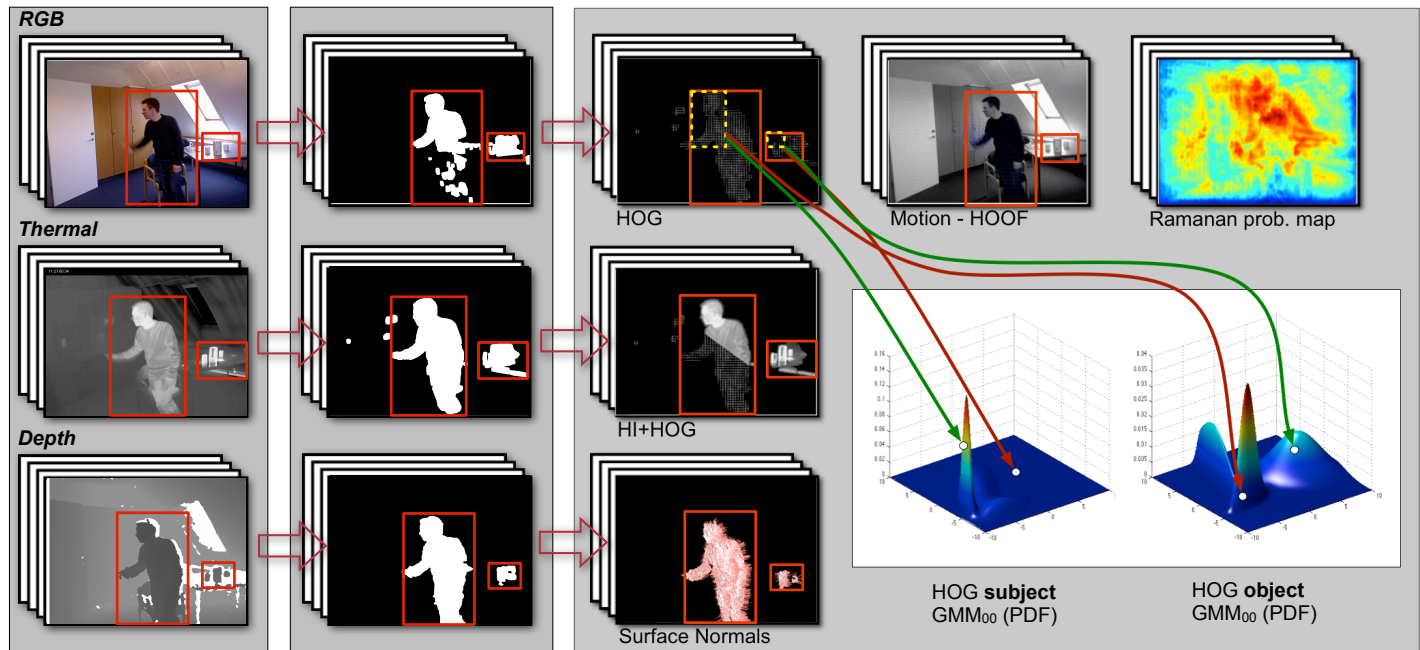


Summary of Previous and Current Work

Baseline definition



Qualitative Results



Future Work

Quantitative results

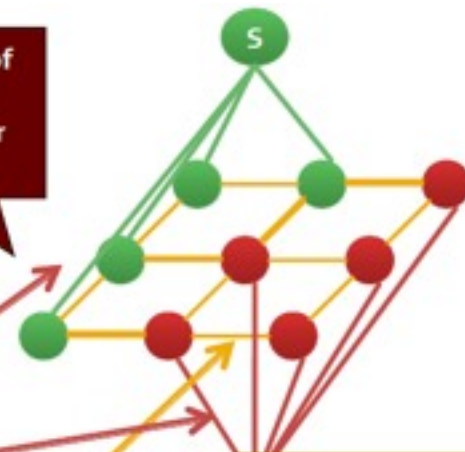
- Human prediction probabilities from different modalities.
- Early vs. late fusion comparison.

Graph Cuts
Optimization
Segmentation

■ Toy example



Log-likelihood of GMM models (BGD,FGD) over RGB



$$E(\underline{\alpha}, \mathbf{k}, \underline{\theta}, \mathbf{z}) = U(\underline{\alpha}, \mathbf{k}, \underline{\theta}, \mathbf{z}) + V(\underline{\alpha}, \mathbf{z})$$

Pixel differences based on RGB Euclidean distance

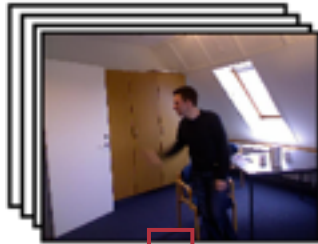
C Rother, V Kolmogorov, A Blake. "Grabcut: Interactive foreground extraction using iterated graph cuts", *ACM Transactions on Graphics*, 2004.

Your personal challenge

- Expected result ☺

Short term

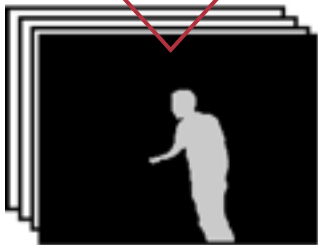
RGB



Thermal



Depth



Long term

...towards a Ph.D.