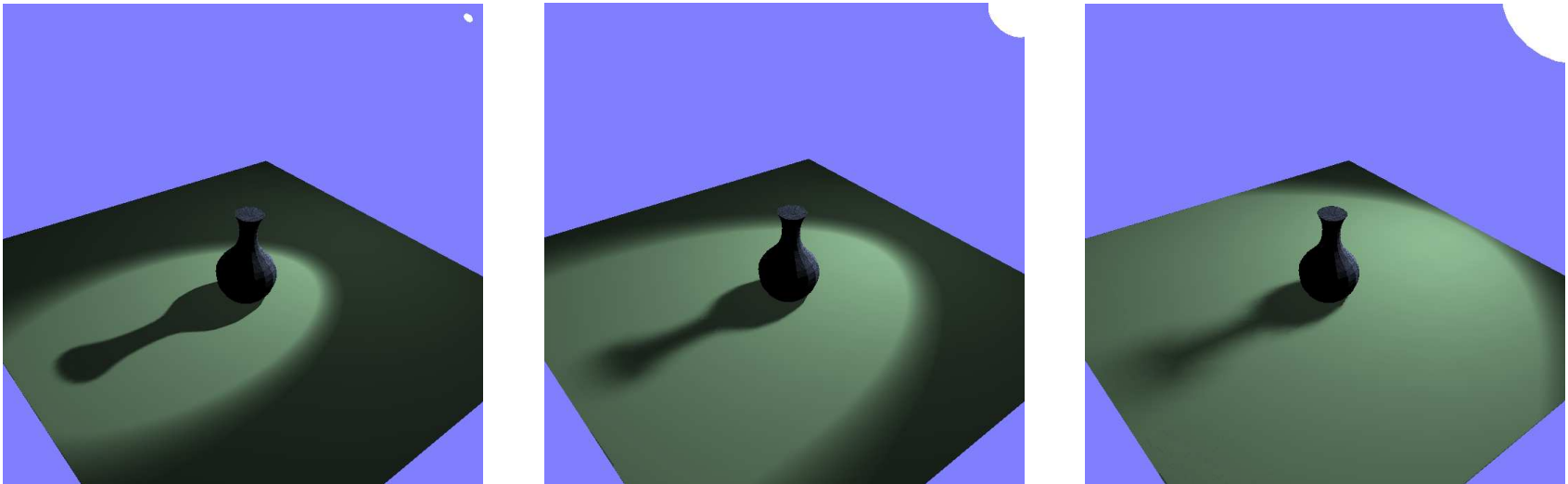


# Soft Shadows

Bjarke Jakobsen  
Kim Steen Petersen

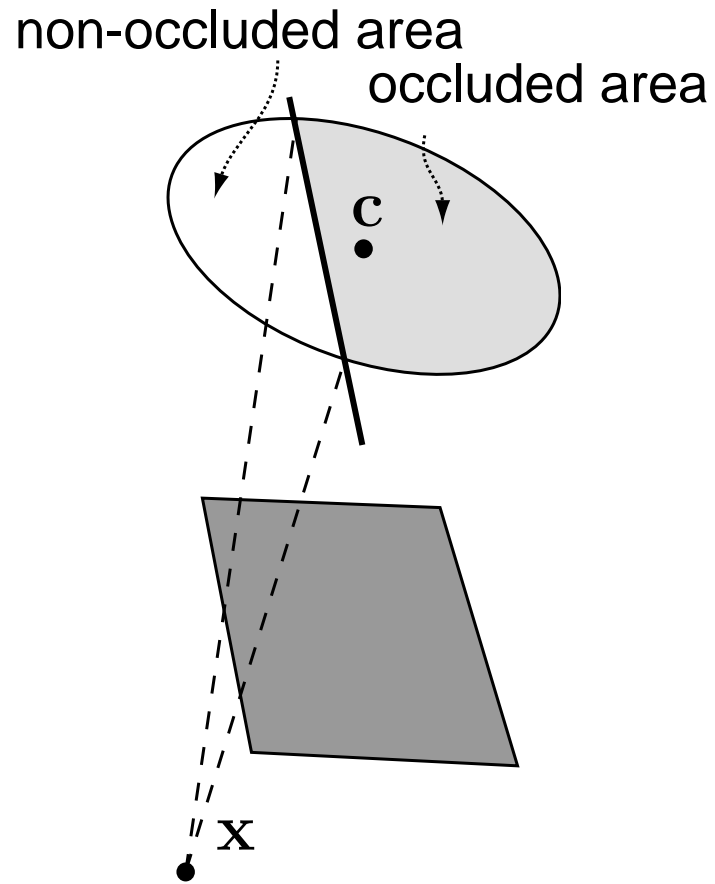
IMM

# Method Properties



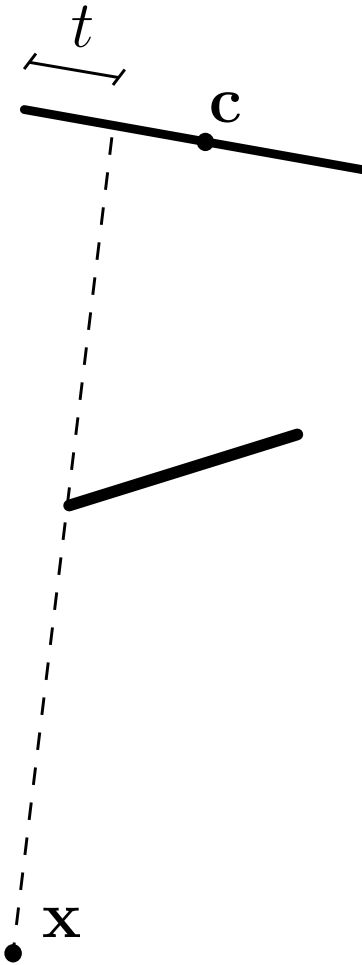
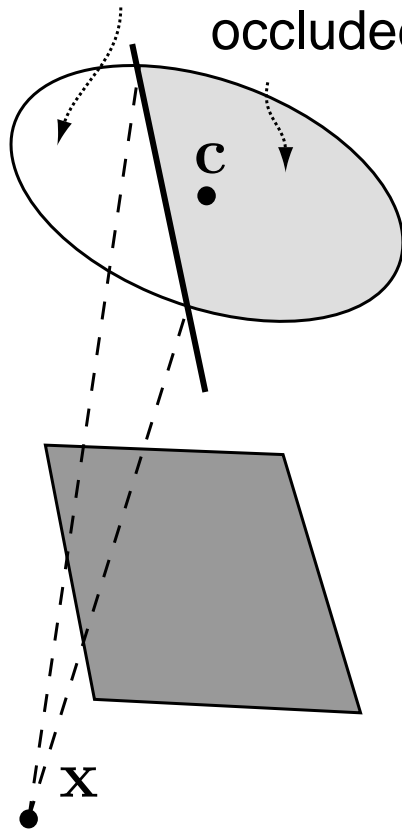
- Varying Penumbra size
- Light source size accounted for

# Method Overview

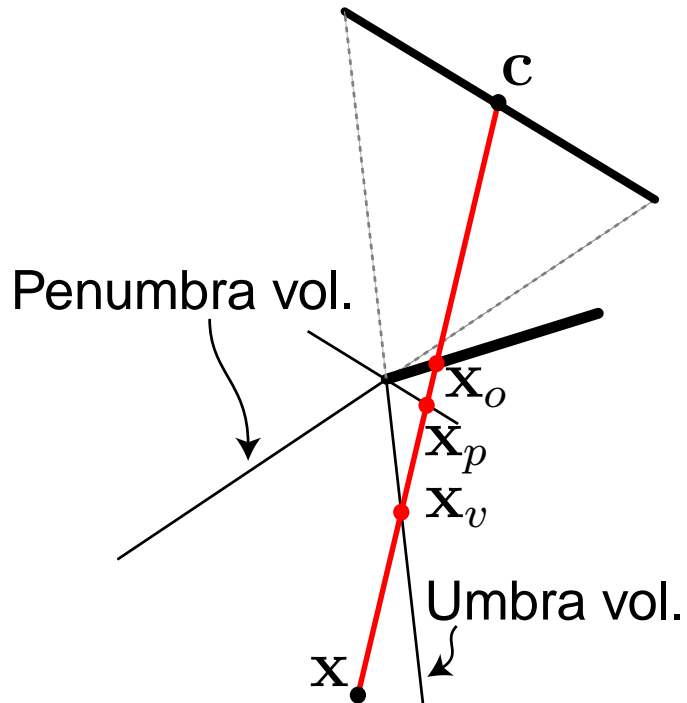


# Method Overview

non-occluded area  
occluded area



# Method Overview



D-buffer content	
$ cx $	Receiver distance
$ cx_o $	Occluder distance
$ cx_v $	Volume distance
$ cx_p $	Pseudo geometry distance

$V$  is calculated from  $|cx|$ ,  $|cx_o|$ ,  $|cx_v|$  and  $|cx_p|$ )

## Hardware programming!

- D-Buffer obtained by rendering from light source using a specialized Vertex Program
- $V$  is calculated per-pixel using Register Combiners
- Division is approximated in the Register Combiners

# Demo