

IMPLEMENTATION OF DCVF



KTH Electrical Engineering

Pravin Kumar Rana

Sound and Image Processing Lab.(SIP)

KTH - Royal Institute of Technology

SE-10044 Stockholm, Sweden



Implementation of DCVF

- Disparity Information
 - Using NDE reference software
 - Using a suitable model

Disparity Information

Using NDE reference software



View 38



View 39



View 40

Nagoya Depth Estimation Reference Software

- Labels to disparity
- Labels to depth
- Matching methods

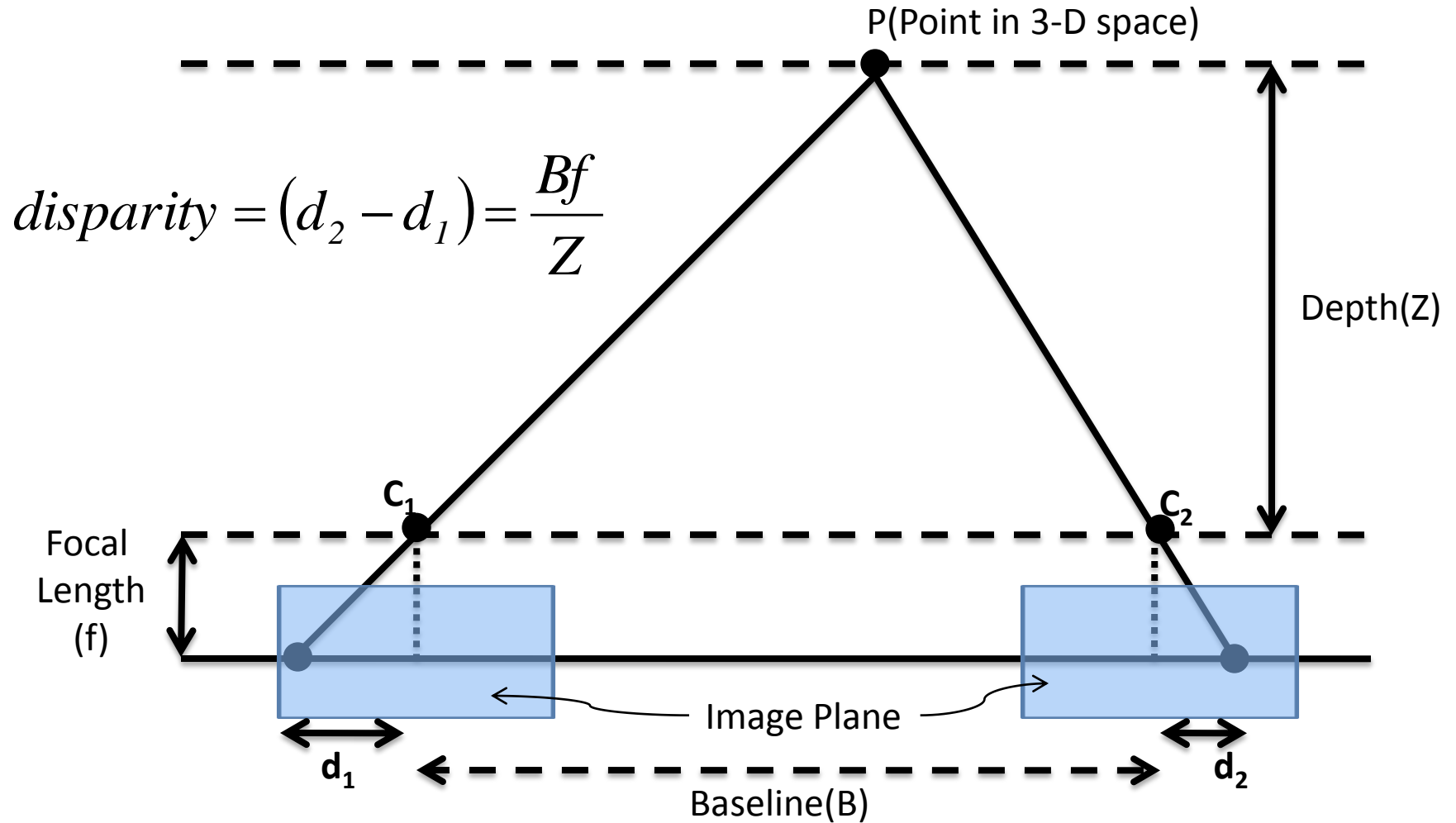
**Disparity
Information**

Labels To Disparity



$$\text{labels to disparity} = \frac{(\text{focal length})(\text{baseline})}{(\text{depth} - \text{depth offset})} - \text{disparity offset}$$

Disparity Information

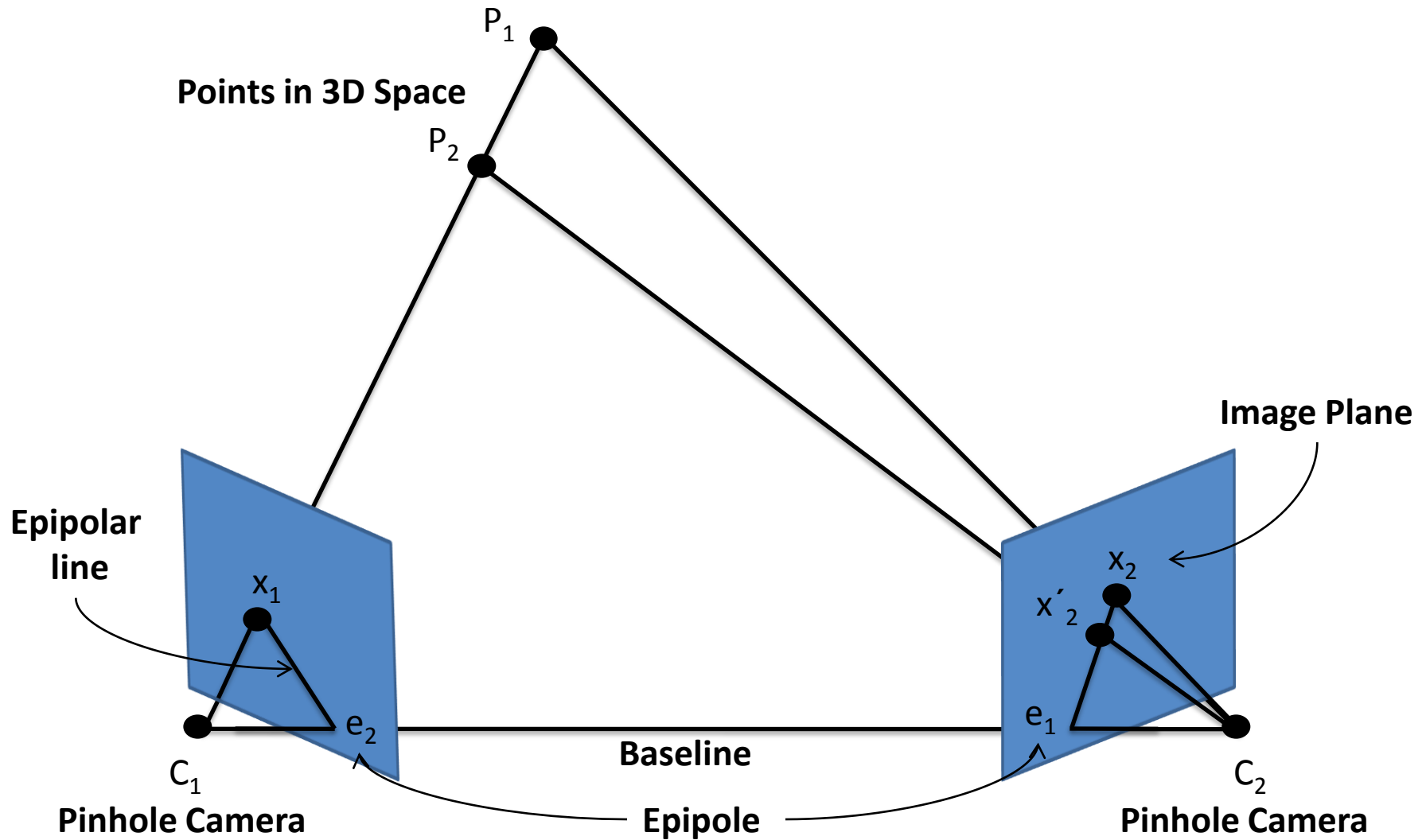




Disparity Information

- Using a suitable model
 - Epipolar geometry
 - Matching points lie along corresponding epipolar lines
 - Reduces correspondence problem to 1-D search along *conjugate epipolar lines*
 - Perspective projection
 - Sample object space at a grid diverging from a vanishing point

Epipolar Geometry



Epipolar Geometry

