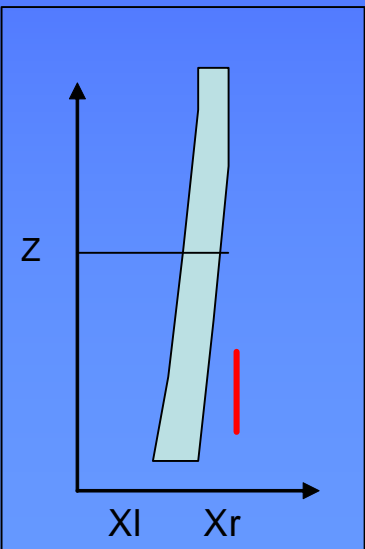
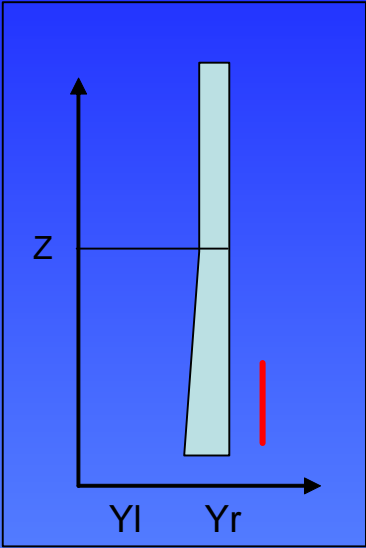
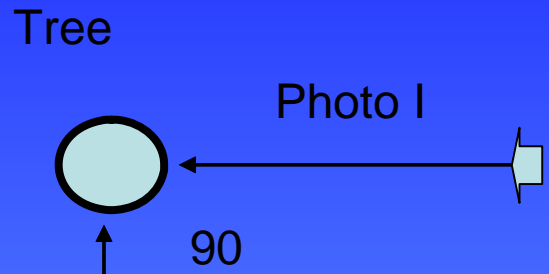


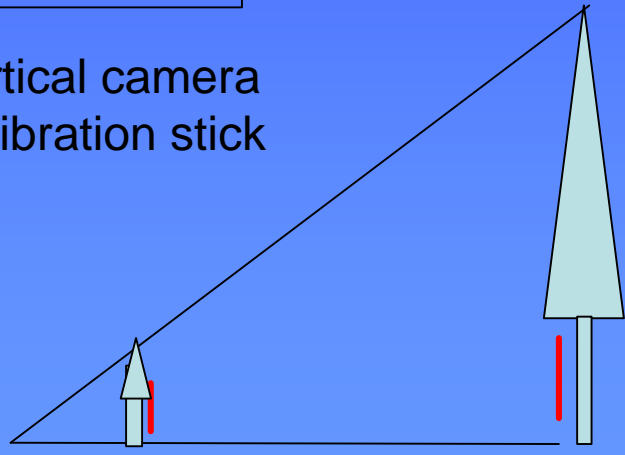
3D profile measurement of standing trees

Dr Adrian Hapca

Methodology

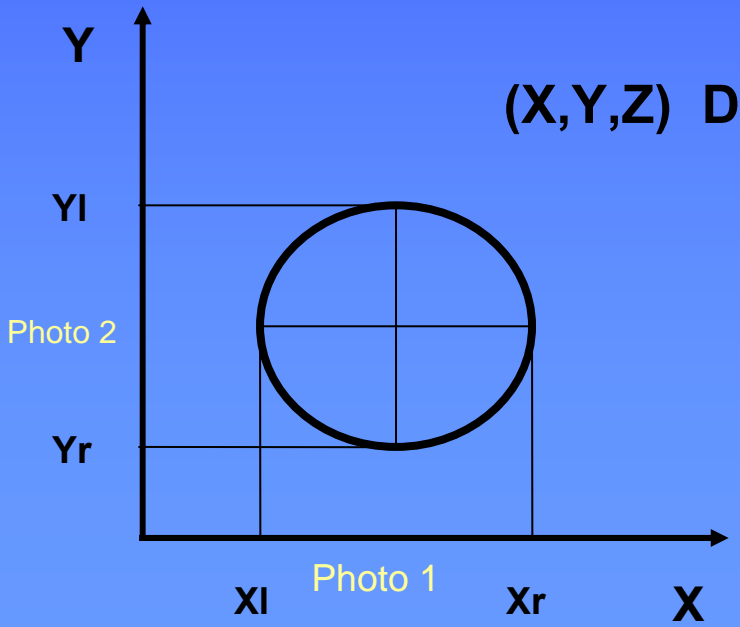
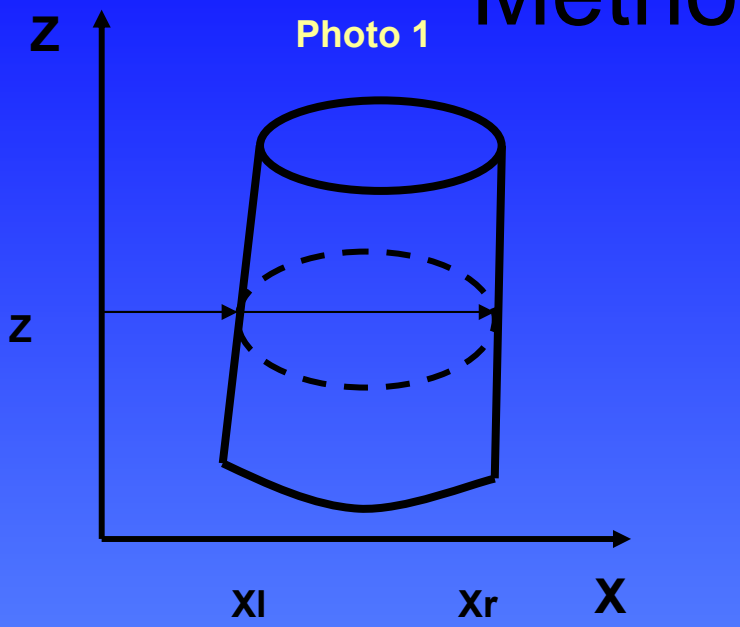


- Vertical camera
- Calibration stick

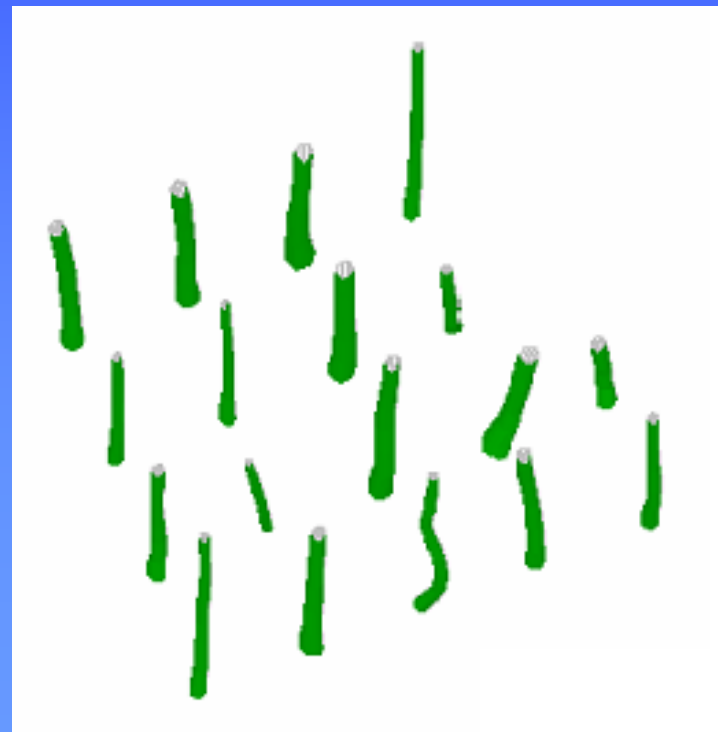
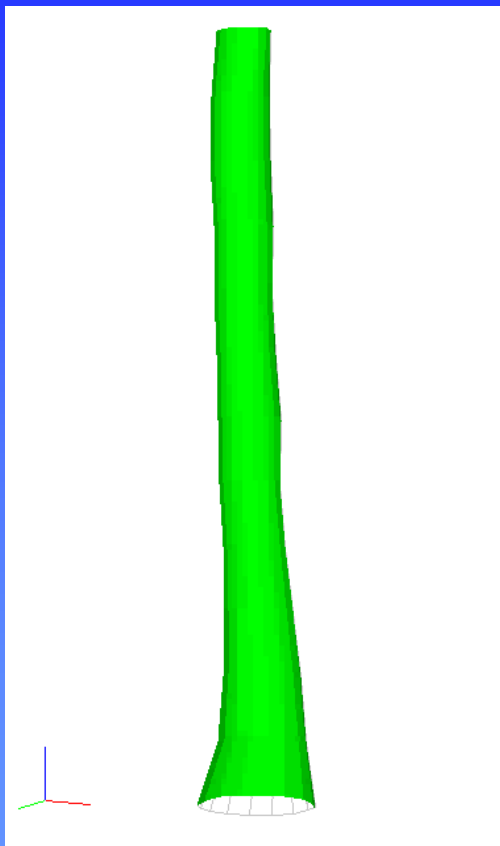
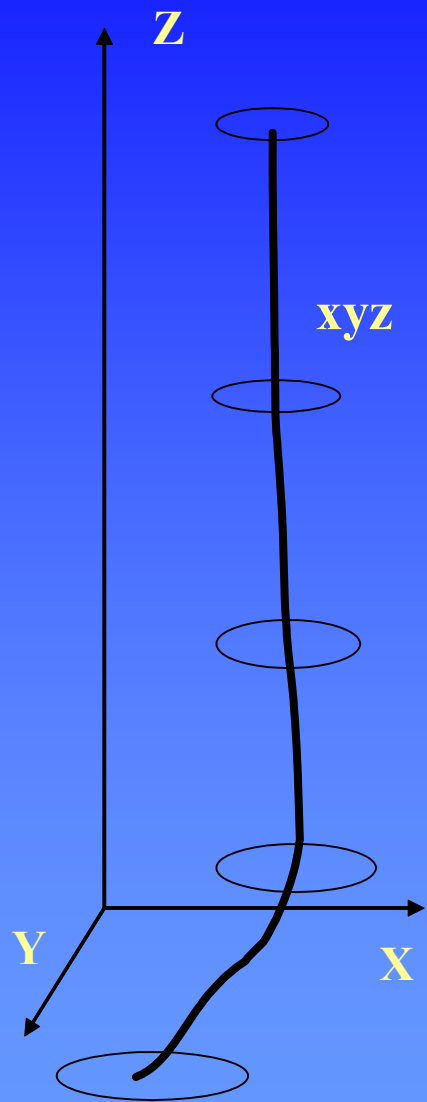


3D Stem Reconstruction

Methodology

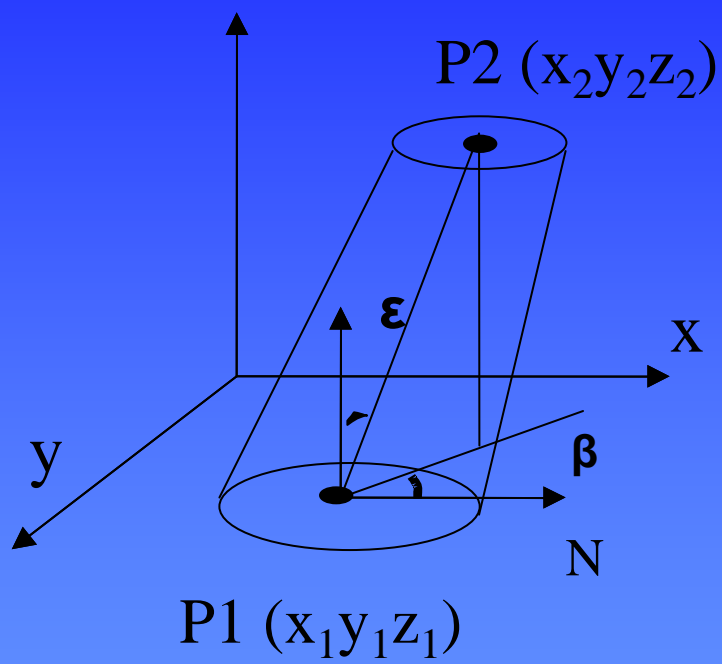


3D Stem Reconstruction

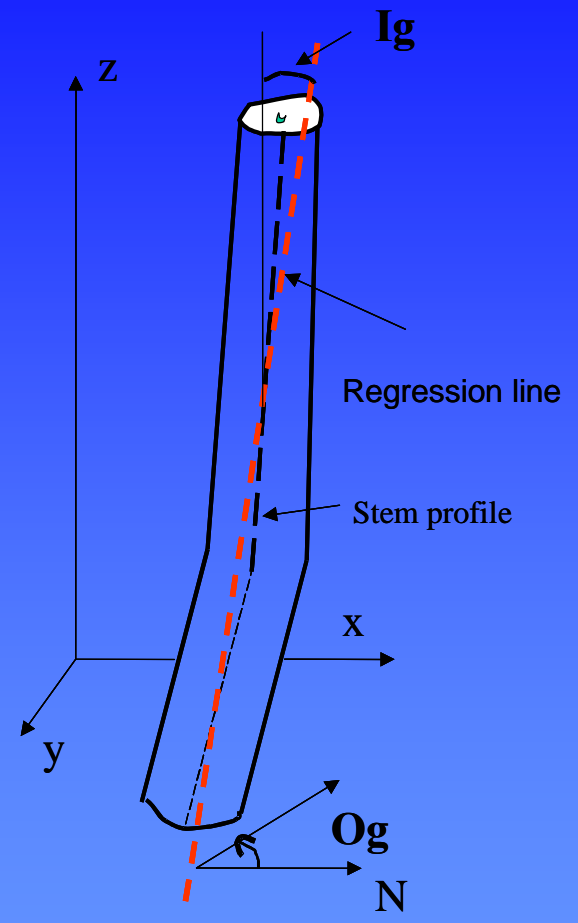


3D Stem Reconstruction

Applications Form indicators



Local slope (ϵ)
Orientation (β).

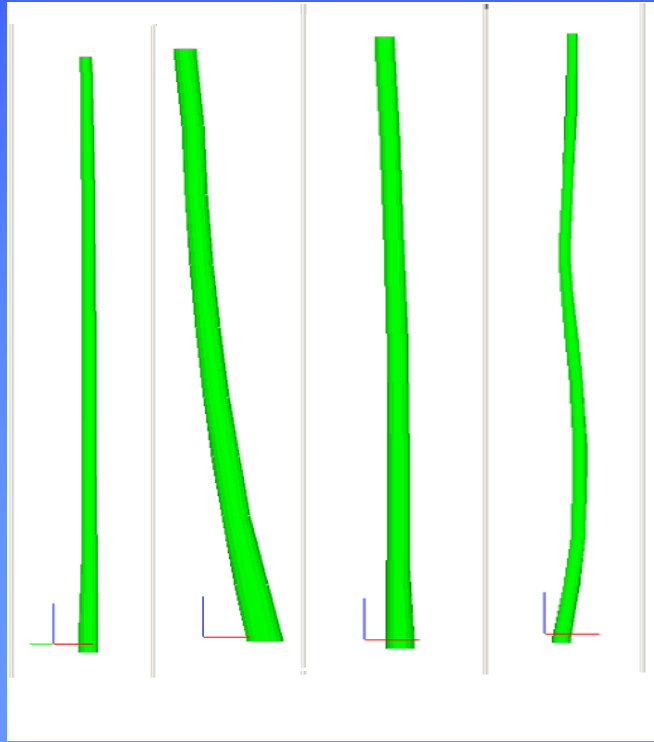
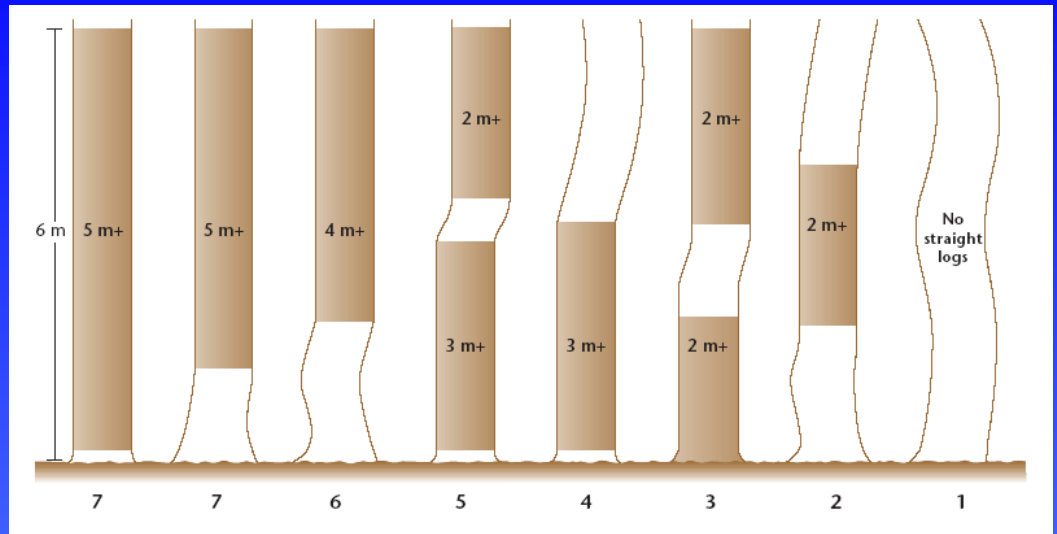


Global Slope (Ig)
Orientation (Og)

3D Stem Reconstruction

Visual assessment

Macdonald et al., 2001
Protocol for stem straightness assessment



Stem form assessment

Laser scanning



Thanks