

TA 101A:2019-20:II

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## Lecture 20 –Space Geometry VI

**Dr. Bharat Lohani**

Professor, Geoinformatics

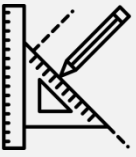
Department of Civil Engineering

IIT Kanpur, Kanpur

Office: WLE 113

Phone: 7413

Email: [blohani@iitk.ac.in](mailto:blohani@iitk.ac.in)

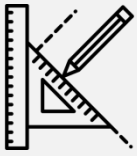


# Recapitulation

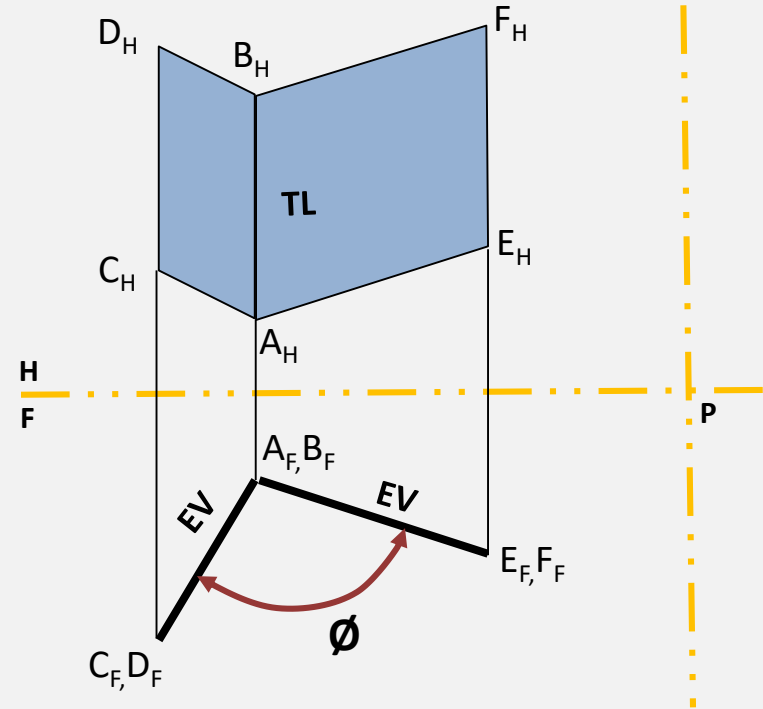
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- Angles of lines with principal planes
  - Using revolution method
  - Using Edge View and TL method
- Angle between a line and a plane
  - Using TL and EV

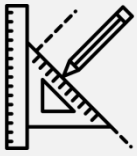
# Interaction of Lines and Planes



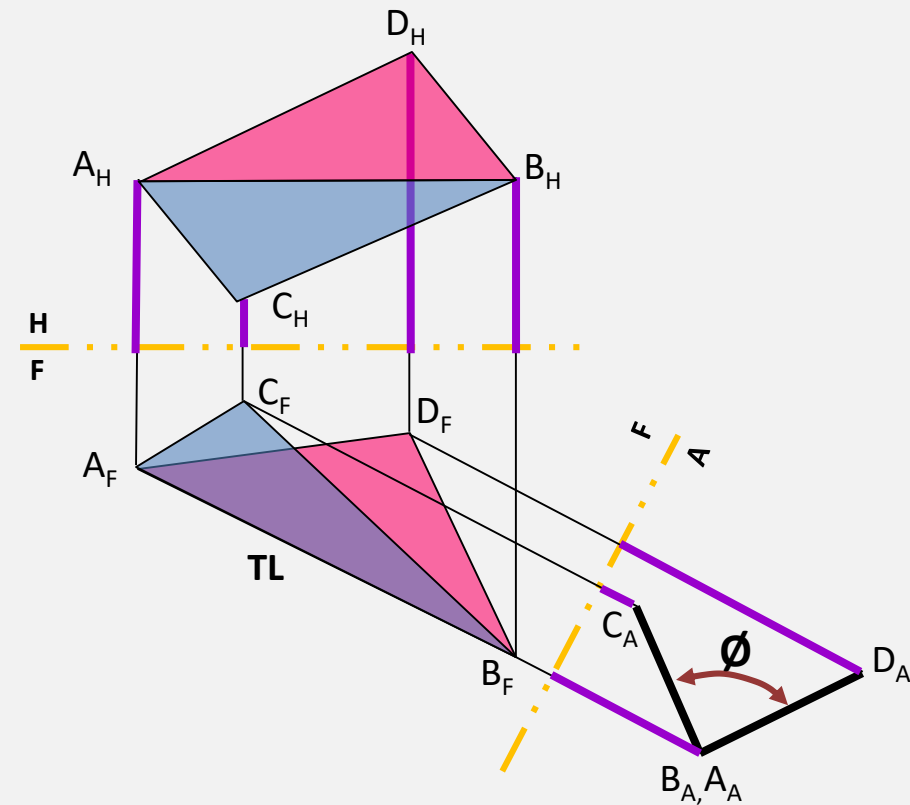
- Angle Between Planes
- Angle between planes is the angle between their edge views
- Case when projections of both planes on Frontal are edge views



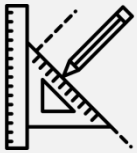
# Interaction of Lines and Planes



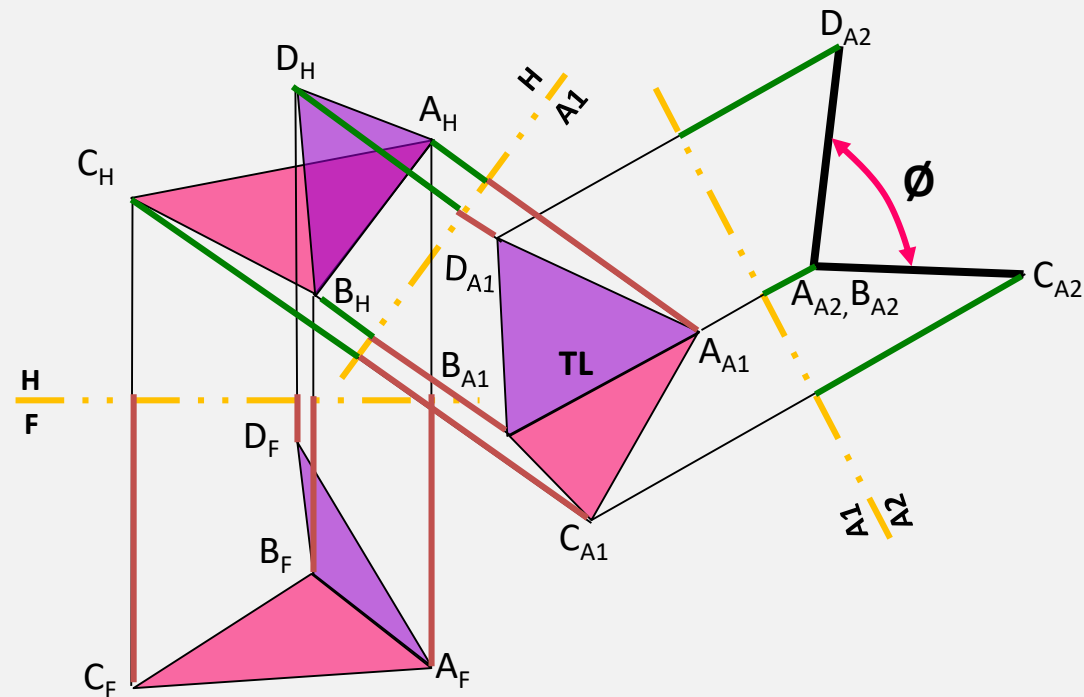
- Angle Between Planes
- Line of intersection given in true length
- Angle between planes is the angle between their edge views



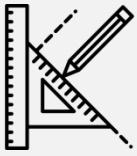
# Interaction of Lines and Planes



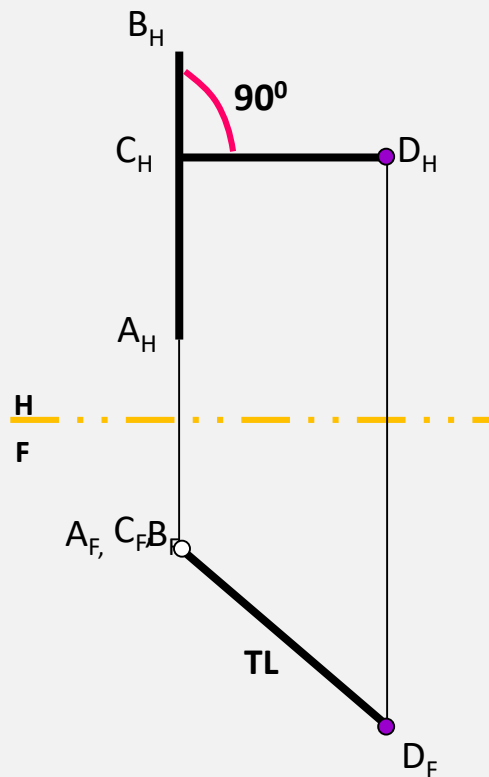
- Angle Between Planes
- Line of intersection NOT given in true length
- Angle between planes is the angle between their edge views



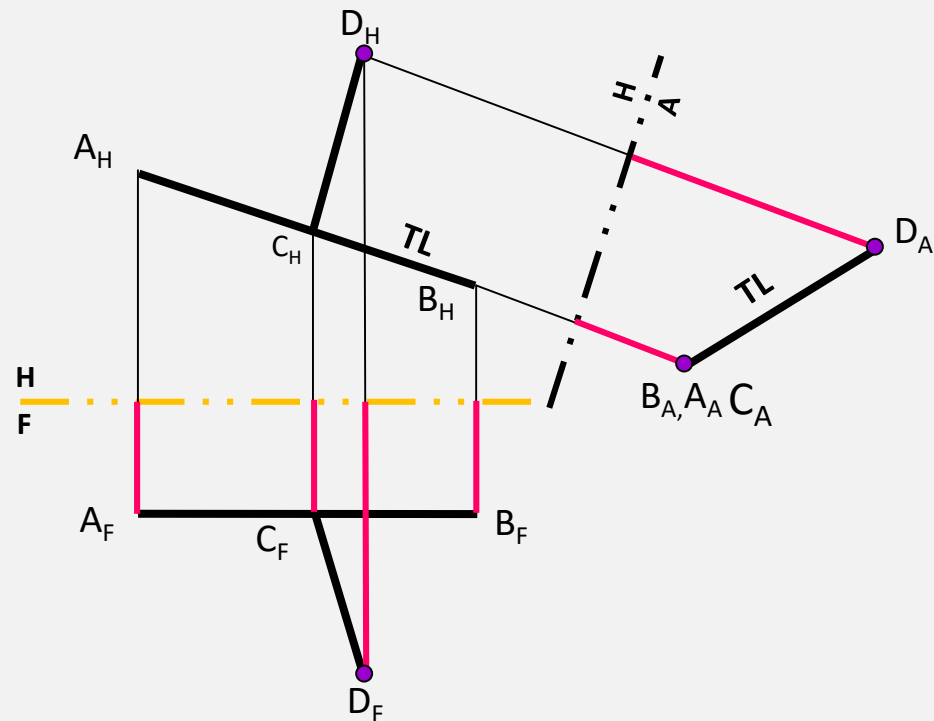
# Interaction of Lines and Planes



- Shortest Distance from a Point to a Line
  - Distance between the point and the point view of the line

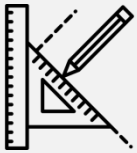


When point view of line is available

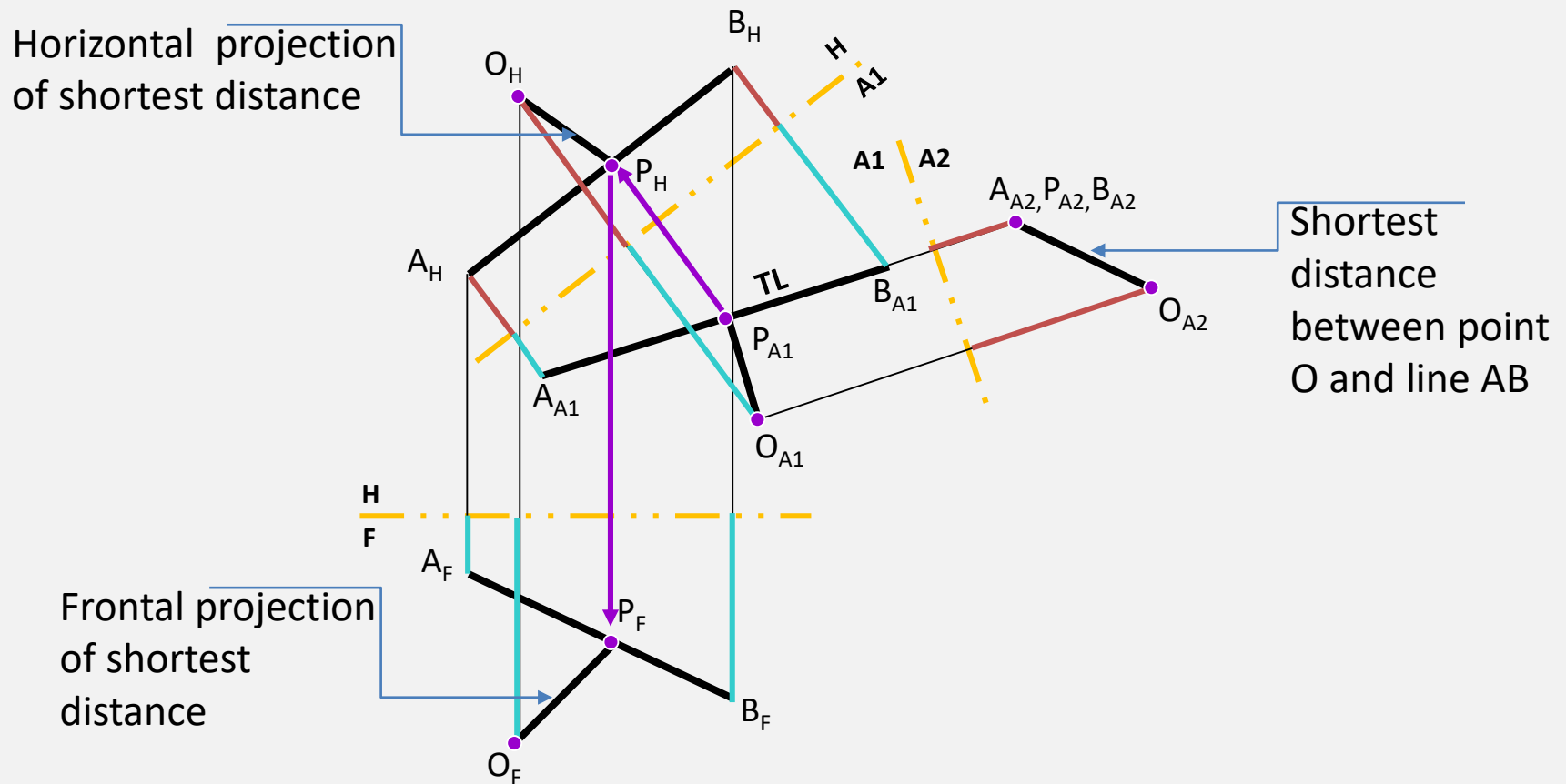


When point view of line is NOT available

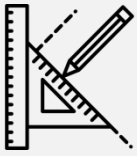
# Interaction of Lines and Planes



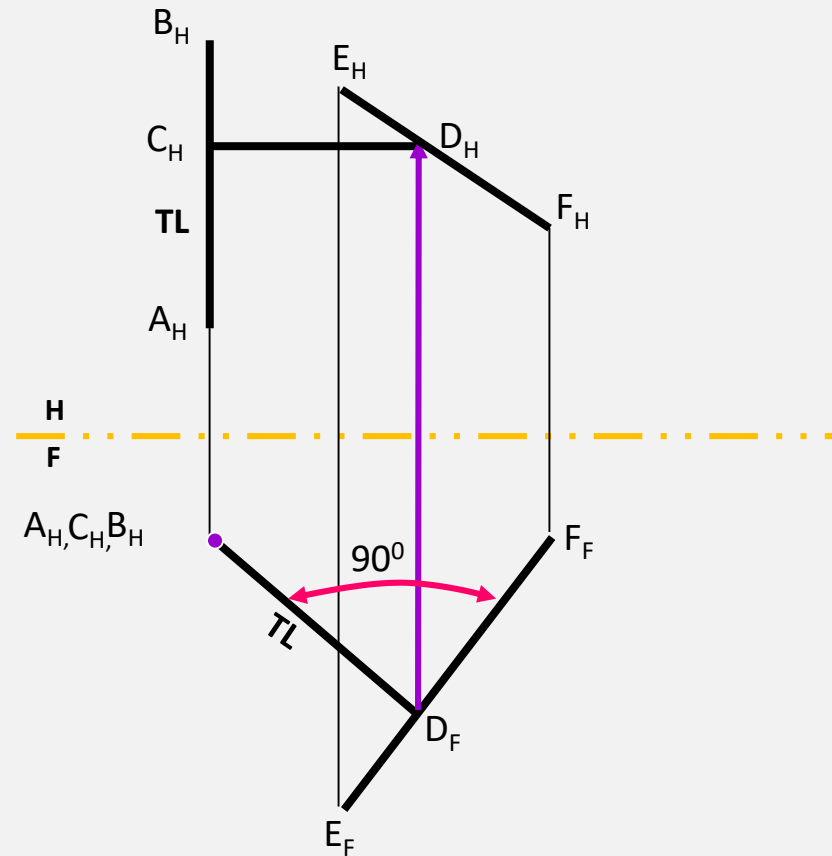
- Shortest Distance from a Point to a Line
  - Distance between a point and an oblique line



# Interaction of Lines and Planes

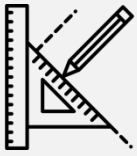


- Distance between two lines
- One line is available as point view
- Distance between two lines is the perpendicular from one line (i.e., point view) on another line on a projection plane

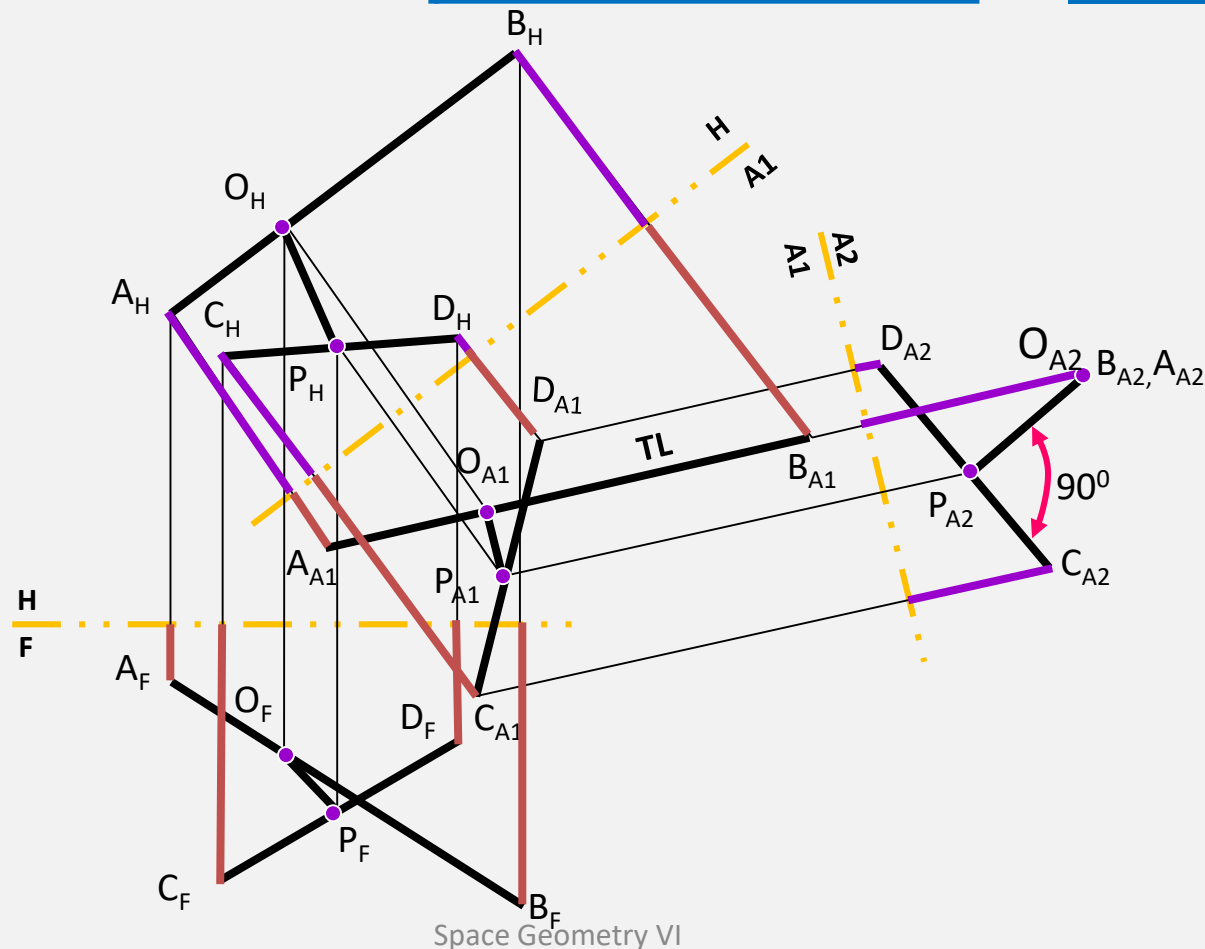


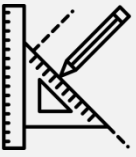


# Interaction of Lines and Planes



- Distance between two oblique lines
  - Perpendicular from point view of a line on other line





**Thank you !**