

# Vertex Detector EMI Issues

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# A Short List of Things to Think About

- EMI IS an issue:
  - We have previous experience of beam-related pickup
    - SLD vertex detector
- RF sources in the ILC interaction region
  - Collimator wakefields?
  - Can EM radiation leak out?
    - Beampipes do have holes!
      - Bellows, pumps, laserwire ports etc.
  - Characteristics of EM environment

# Vertex Detector Sensors

- What about the susceptibility of ICs?
  - Vertex detector sensors themselves
    - Could chips behave like waveguides for escaping RF?
  - Different response of various technologies
    - Disturbance to stored signals in pixels
- Shielding of vertex detector
  - Faraday cages?
- Chris Damerell's talk in the VXD session and EMI session next week.