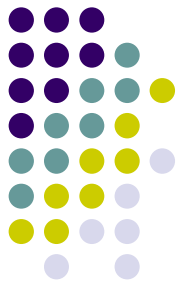


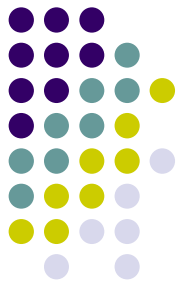
Cavity Fabrication



BCD

- With international experience of ~1000 Nb cavities, the “standard” fabrication processes are well established -- only two issues remain:
 - **Quality Assurance** and **Cost Reduction**
 - **Tighten procedure controls**
 - **Reduce material costs**
 - Form half-cells directly from ingot slices
 - Avoid over-specifying Nb (e.g., relax Ta spec?)
 - **Find ways to reduce endgroup costs**
 - Superconducting joint would create valuable opportunities

Cavity Fabrication



ACD

- Possible cost reduction using **Spinning** or **Hydroforming** of 9-cell assembly from Nb or Nb/Cu clad tubing
 - 4-6 hours / cavity from tube
 - Sample cavities perform excellently (≥ 40 MV/m)
 - Nb/Cu cladding could reduce required Nb by 75%
 - Interface to endgroups must be resolved
 - More experience and industrial cost analysis needed
 - ~\$1-2M investment required to evaluate net potential value