Lecture # 27  11-28-2012

- $\Sigma P^\mu$ is conserved
- Invariants

Angular momentum

$$\Pi^{\mu\nu} = (x^\mu p^\nu - x^\nu p^\mu)(-\frac{1}{c})$$

$$\frac{\delta S}{\delta \Pi^{\mu\nu}} = M^{\mu\nu}$$

Conserved for Lorentz invariant action

Today 32a) 4 current
   1) 4 potential

33a) Lagrangian for an EM
   1) Canonical momentum
   2) Motion in uniform B-Field
34) Electromagnetic Field tensor