Short time intermittency and long time plastic correlations in jammed systems ARKA ROY, CMU, CRAIG MALONEY, NEU — Using numerical simulations of model amorphous, frictionless, soft discs, we study the effect of strain rates ($\dot{\gamma}$) and volume fractions ($\phi$) on the microscopic dynamics and plastic activity near, but above, the jamming point ($\phi_J$). Well above $\phi_J$, at slow shear rate, the system responds in a highly intermittent way, reminiscent of other dynamically critical systems with a power law distribution of energy dissipation rates. With increasing $\dot{\gamma}$ at fixed $\phi$ or letting $\phi \to \phi_J$ from above at a fixed rate, the intermittent behavior vanishes. All displacement distributions show non-Fickian behavior at short time crossing to Fickian behavior at longer times. Very surprisingly, the characteristic strain for that crossover is independent of $\phi$. We also find that, despite the dramatic differences in the short time dynamics, the long time plastic rearrangements are essentially identical. Long-range spatial correlations in strain are cut off only by the size of the simulation cell.