**Schwarzschild Metric - Motion in Standard Coordinates**

**Metric**

**Lagrangian**

**Newtonian Approximation**

**Christoffel Symbols**

**Geodesic Equations**

**Hamiltonian**

**Conserved Quantities**

**Timelike Equation of Motion**

**Radial Trajectory**

**Radial Freefall from Infinity**

**Circular Orbit**

**Effective Potential**

**Circular Orbit Time Dilation**

**Stationary Time Dilation**

**Stationary Proper Acceleration**

**Null Geodesics**

**Metric**

**Lightlike Equation of Motion**

**Radial Photon Trajectory**

**Christoffel Symbols**

**Geodesic Equations**

**Photon Sphere**

**Gullstrand-Painlevé Coordinates**

**Metric**

**Lagrangian**

**Christoffel Symbols**

**Geodesic Equations**

**Hamiltonian**

**Timelike Equation of Motion**

**Radial Freefall from Infinity**

**Null Geodesics**

**Radial Photon Trajectory**