

BLACK HOLES

- Quintessential prediction of GR
- Space is dragged inward faster than light
- Stable bubbles of pure gravity, surrounded by one-way “event horizons”
- Even Einstein thought they were a mathematical step too far



BLACK HOLES

NUMERICAL RELATIVITY

- Oscillation - Non-linear dynamics require numerical methods
- Formation - Open conjectures about formation requirements, possible properties
- Accretion - Astrophysics of BH environments
- Binary black hole mergers - Major gravitational wave source