

Today's talks

- Talk on **quantum gravity**:
 - Ed: Background-independent operator product algebra for an observer inside system
Static patch in dS = observable region, empty dS has maximal entropy
What if the observer did not always exist? Generalisation from QFT to string theory?
- Talks on **cosmology**:
 - i) **Gabriele**: Pre-big-bang cosmology from $O(d,d)$ symmetry in string theory exact in α'
Bounce/inflation, regular bouncing solutions in a 'Hamiltonian' reformulation of HZ approach
Dilaton stabilisation? perturbations? validity of approximations?
 - ii) **Michele**: 'Loop Blow-up Inflation', post-inflation epoch with reheating from moduli decay
Metastable dS model-building seems easier than quintessence
If data prefer dynamical DE: axion quintessence from poly-instantons
- Talks on **astrophysics**:
 - i) **Thibault**: Computation of GW flux from black hole binaries by studying gravitational 2-body interaction
Effective one-body approach, perturbative computation of 2-body Hamiltonian
Analytical approach important on top of numerical relativity
 - ii) **Eric**: Tidal interactions in binary inspirals for neutron stars
Importance of modelling tidal interactions to get GW flux, Newtonian vs relativistic description
Cancellation of tidal numbers for BHs from internal symmetry/event horizon?
- Talk on **foundations of QM**:
 - Lajos**: Post-quantum stochastic gravity proposal to improve semiclassical gravity
Spontaneous wavefunction collapse which removes Schroedinger cat states
Relativistic semiclassical gravity?