**Factor ordering and path integral measures in 2d quantum gravity
and quantum cosmology** RACHEL MAITRA, Wentworth Institute of Technology — A central problem in canonical quantum gravity is the selection, from among
infinitely many possibilities, of an appropriate ordering for noncommuting factors in
the kinetic term of the Wheeler-DeWitt operator. The same issue presents itself in
a path integral approach when one seeks to define a measure on a space of histories.
This talk examines these two linked problems in the simpler contexts of 2d quantum
gravity and quantum cosmology, where the configuration space becomes finite dimensional and the issues quantum mechanical rather than quantum field theoretic.
For a range of factor orderings, we investigate the implied domain of physical states
for the Hamiltonian, solutions to the Wheeler-DeWitt equation, and associated path
integral expressions.

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