Invariant measures for the actions of infinite classic groups on the spaces of infinite matrices

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We plan to remind Vershik-Olshanski ergodic method and the spectral decomposition of invariant measures, and then apply this methods for the actions of the infinite unitary group by conjugation on the space of infinite hermitian matrices (work of A.Vershik and G.Olshanski) and for the corresponding actions of the infinite orthogonal group \$O(\infty)\$ and the infinite symplectic group \$Sp(\infty)\$ on the spaces of infinite real (anti)symmetric and infinite quaternionic (anti)hermitian matrices.