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On the Hardy space  $H^2$  of the unit disk, an analytic Toeplitz operator is multiplication by a bounded analytic function and a composition operator is composition with an analytic function that maps the disk into itself. The composition operators on  $H^2$  whose symbols are automorphisms of the disk fixing  $\pm 1$  form a one-parameter group of bounded operators and the analytic Toeplitz operators coming from covering maps of annuli centered at the origin whose radii are reciprocals also form a one-parameter group. The point spectra of the composition operators and of the adjoints of the Toeplitz operators are each this family of open annuli. There is not a unitary operator on  $H^2$  that takes the group of composition operators to the group of adjoints of analytic Toeplitz operators. However, the subspace  $zH^2$  forms an invariant subspace for each operator in the group of analytic Toeplitz operators and in the group of adjoints of the composition operators. From the corresponding eigenvectors associated with the point spectra noted above, a direct unitary equivalence is found between the group of restrictions of the analytic Toeplitz operators and the group of restrictions of the adjoints of the composition operators. (Received July 08, 2010)