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Tim Ferguson* (tjferguson1@ua.edu). *Equivalence among variable exponent Hardy or Bergman spaces.*

We study the question of when two weighted variable exponent Bergman spaces or Hardy spaces are equivalent. As an application, we show that variable exponent Hardy spaces have a close relation to classical Hardy spaces when the exponent is log-Hölder continuous and has bounded harmonic conjugate (when extended from its boundary values to be harmonic in the disc). We use this to characterize Carleson measures for these variable exponent Hardy spaces. We also prove under certain conditions an analogue of Littlewood subordination and a result on the boundedness of composition operators. (Received September 21, 2018)