

Faint quasar candidates from Hubble Space Telescope imaging: Number counts from high-latitude fields

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Quasars that are representative of the populous faint end of the luminosity function are dim, with $m > 24$ even at intermediate redshifts. Moreover, traditional groundbased surveys for such faint quasars often suffer from severe contamination by compact galaxies. In order to limit the latter morphological contamination, we are conducting a combined multicolor and morphological survey for faint quasars, to $B < 24.5$ and $z < 2.1$, using archival *Hubble Space Telescope* (*HST*) images. Our previous work provided a similar survey of the Groth-Westphal Strip. Here we extend our survey to an additional 31 high-galactic latitude (pure parallel) fields that cover another 0.04 deg^2 of sky, imaged with the superb $0.1''$ spatial resolution of the Wide Field Planetary Camera 2 (WFPC2) aboard *HST*. In our expanded survey, we identify an additional 19 high-likelihood UV-excess quasar candidates having stellar or stellar-nucleus plus host-galaxy morphology, and yielding a cumulative quasar surface density of $511^{+142}_{-113} \text{ deg}^{-2}$. Our results are in reasonable agreement both with our own earlier survey of the Groth-Westphal Strip, as well as with other faint quasar surveys that utilize very different selection approaches.