SDSSp J104433.04−012502.2 at $z = 5.74$ is Gravitationally Magnified by an Intervening Galaxy*

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gravitational lensing — galaxies: high-redshift — galaxies: quasars: individual (SDSSp J104433.04−012502.2)

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abstract During the course of our optical deep survey program on $L_\alpha$ emitters at $z \approx 5.7$ in the sky area surrounding the quasar SDSSp J104433.04−012502.2 at $z = 5.74$, we found that a faint galaxy with $m_B(AB) \approx 25$ is located at 1”.9 southwest of the quasar. Its broad-band color properties from $B$ to $z'$ suggest that the galaxy is located at a redshift of $z \sim 1.5 - 2.5$. This is consistent with no strong emission line in our optical spectroscopy. Since the counter image of the quasar cannot be seen in our deep optical images, the magnification factor seems not to be very high. Our modest estimate is that this quasar is gravitationally magnified by a factor of 2.