

Figure 18. Velocity-resolved lags. The upper subpanel in each panel is the velocity-resolved lags, and the lower subpanel is the rms or mean spectrum. The horizontal dash lines and yellow horizontal spans are the mean time lags and their uncertainties. The vertical dashed lines mark the edges of the velocity bins. The peak correlation coefficient is denoted in each bin at the top subpanels.

uncertainties of the average lag measurement is the smallest of the four seasons, which may result from its relatively small variation amplitude of the light curves in this season.

PG 1001+054: The H β profile shows significant blue asymmetry (see Table 1 and Figure 6). It has stronger Fe II emission lines (see Figure 1) compared to the other objects,

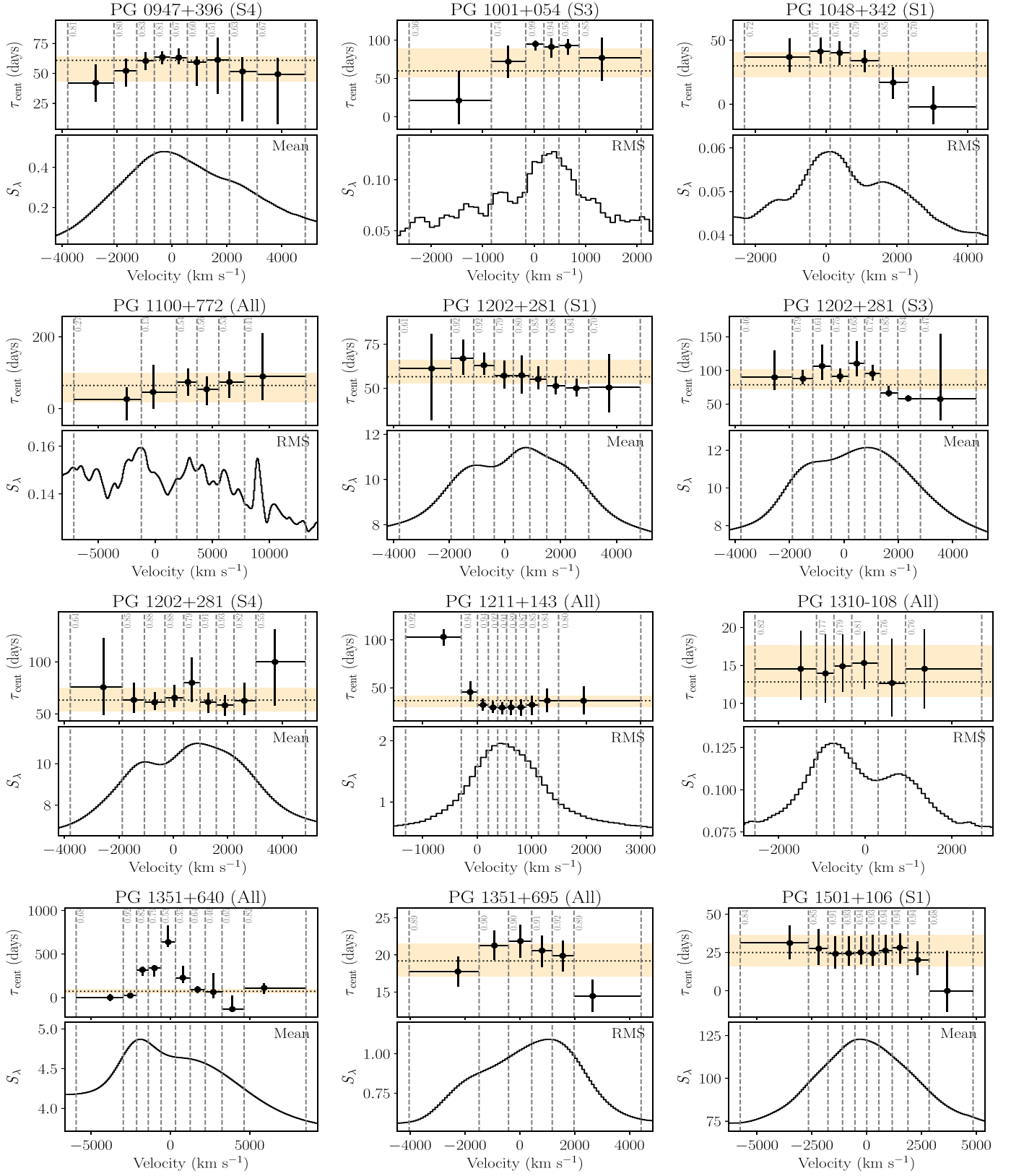


Figure 18. (Continued.)

which is consistent with the positive correlation between the asymmetry parameter A and the relative strength of Fe II reported by Boroson & Green (1992). We prefer the BH mass measured from the entire combined light curve. The

BH mass measured in our campaign is $1.07^{+0.12}_{-0.12} \times 10^8 M_{\odot}$. Its velocity-resolved lag measurement in Season 3 suggests an outflow signature (shorter lags at blue velocities and longer at red).