APPENDIX

B. IMAGES AND SPECTRA OF OBJECTS WITH LARGE VELOCITY DISPERSIONS

Figure B1 shows images and spectra of objects which are not obvious superpositions. Figure B2 shows the corresponding information for objects which are superpositions. In all cases, top left in each series of panels shows fields approximately $1' \times 1.5'$ and $7.6'' \times 10.4''$ in size centred on the objects (each pixel is $0.4''$ on a side). The SDSS spectrograph fibers are each $3''$ in diameter, so neighbours more distant than this are unlikely to affect the observed spectrum. The top center and top right panels show the results of the cross-correlation function and the direct-fit estimates of the velocity dispersion. Bottom panels show sections of the spectrum with our best-fitting composite spectra superimposed. In Figure B2 (objects classified as superpositions), the best two-component fit is also shown. Two-component fits are also shown in some cases of Figure B1 where the evidence for two components is reasonable but not compelling.

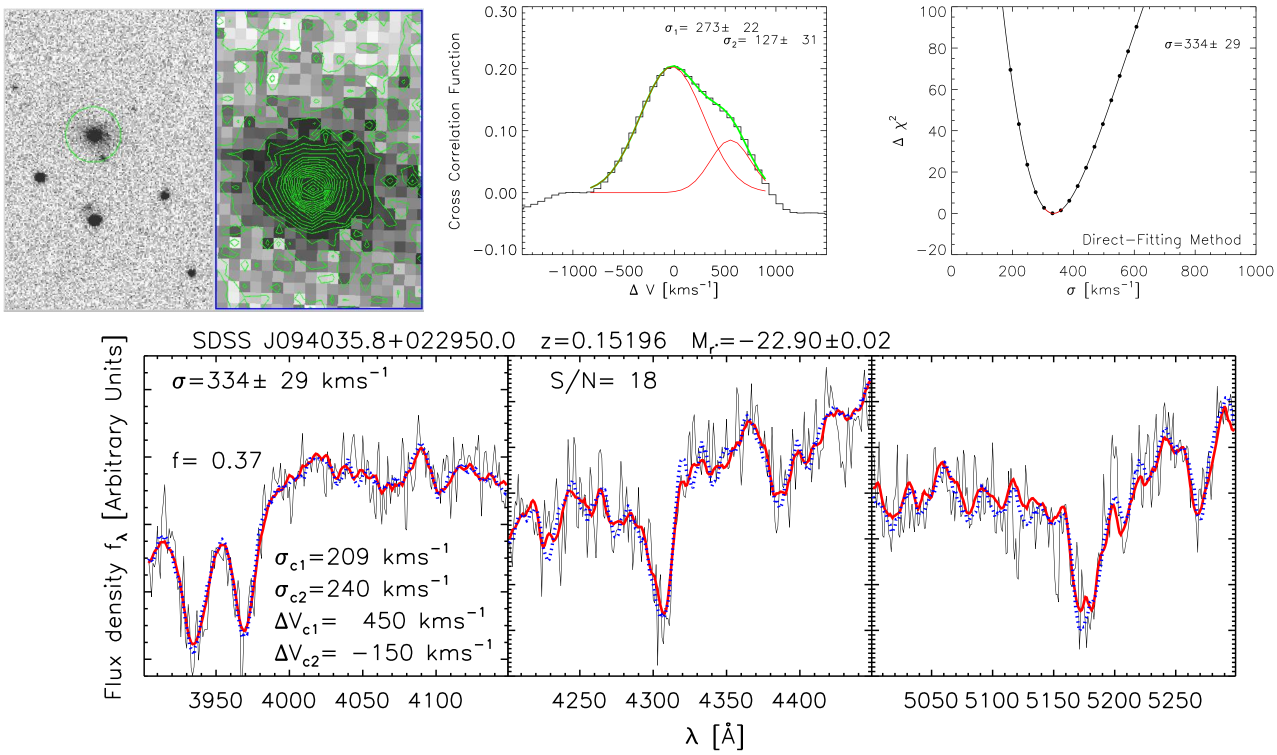


FIG. B1.— Photometric and spectroscopic properties of objects with $\sigma > 350$ km s^{-1} and S/N>10 which are not obvious superpositions. Top left in each series of panels shows fields approximately $1' \times 1.5'$ and $7.6'' \times 10.4''$ in size centred on the objects (each pixel is $0.4''$ on a side). The SDSS spectrograph fibers are each $3''$ in diameter, so neighbours more distant than this are unlikely to affect the observed spectrum. The top center panels show the cross-correlation between a template and the observed spectrum. Double-Gaussian fits to the cross correlation function, shown as two smooth red curves which sum to give the green curve, and yield estimates for the velocity dispersions of the individual components. The value of χ^2 around its minimum, computed using a the direct-fit method assuming only a single broadening function, is shown in the top right panel of each series; text shows the estimated velocity dispersion. The bottom panels in each series show the result of using the direct-fit method to determine the pair of composite spectra which best-fit the observed spectrum; red solid lines show the combined spectrum of the best-fitting pair, the parameters of which are given in the left-most panel. For comparison, blue dotted lines show the best-fitting single component spectrum; text at the top of the panel shows the associated estimate of σ. In some cases the spectrum is best-fitted just by a single component; in these cases only a red solid line, showing the best-fitting single component, is presented. (The values of σ reported in this Figure are not aperture corrected.)

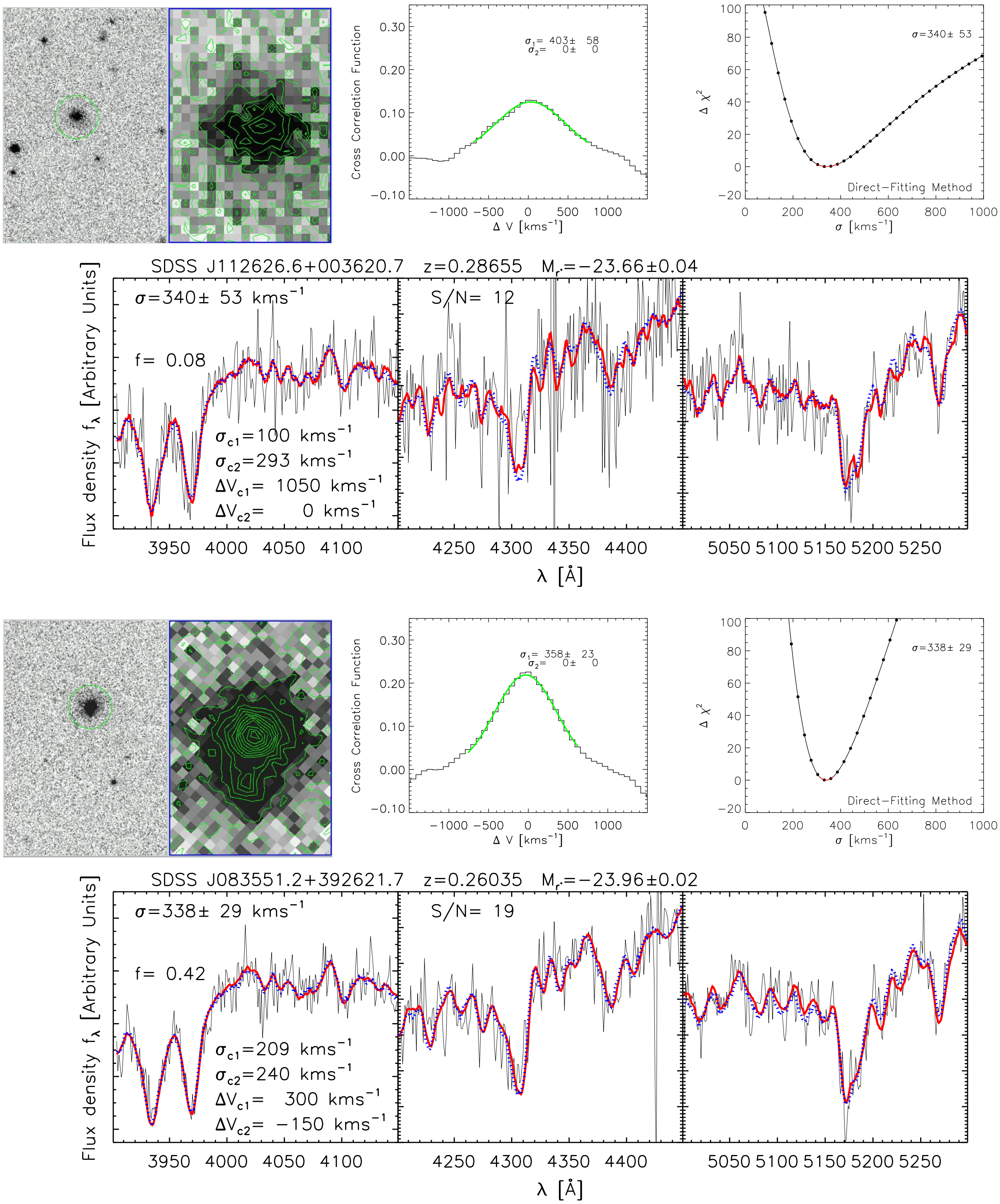


FIG. B1.— Continued.

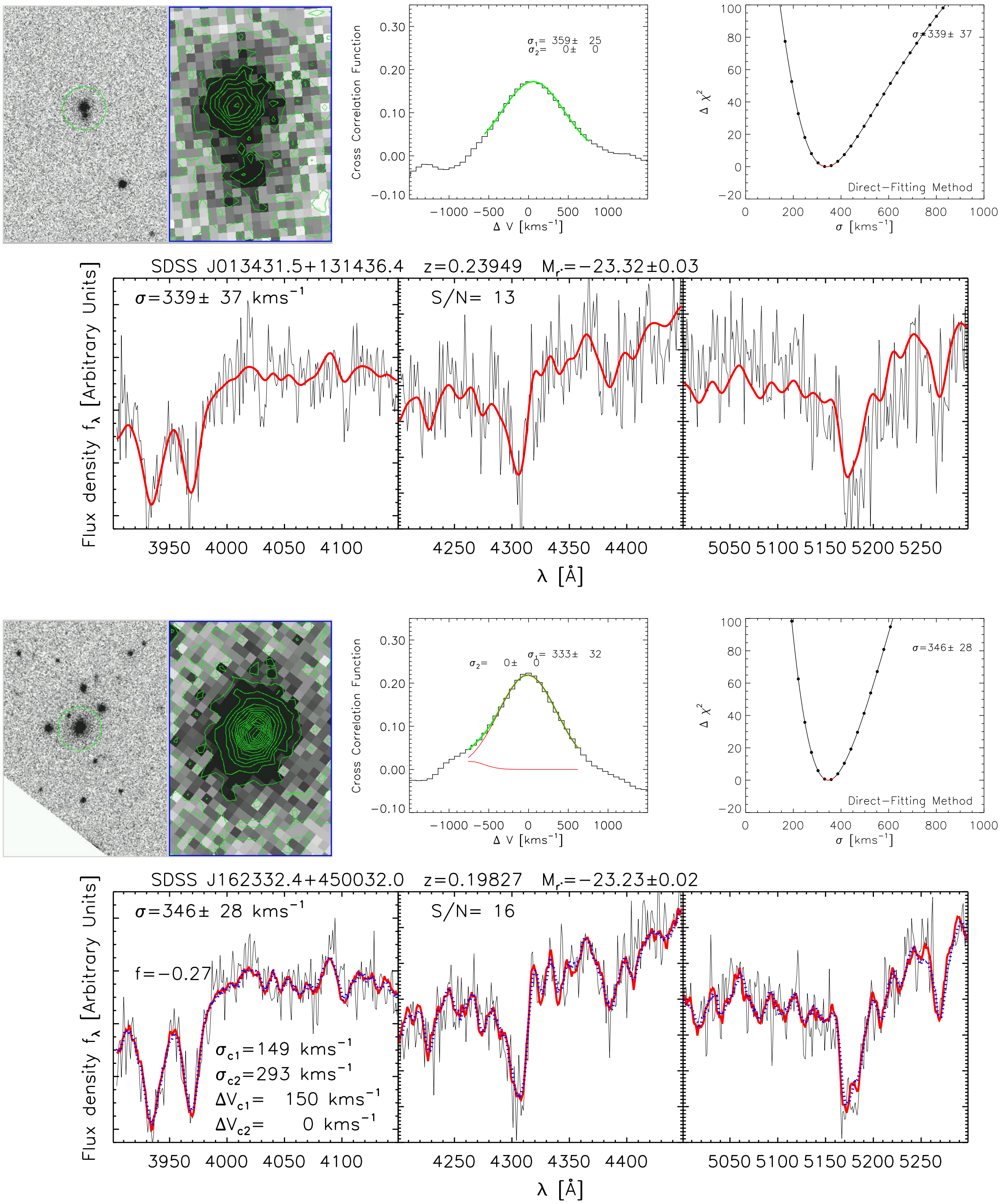


FIG. B1.— Continued.

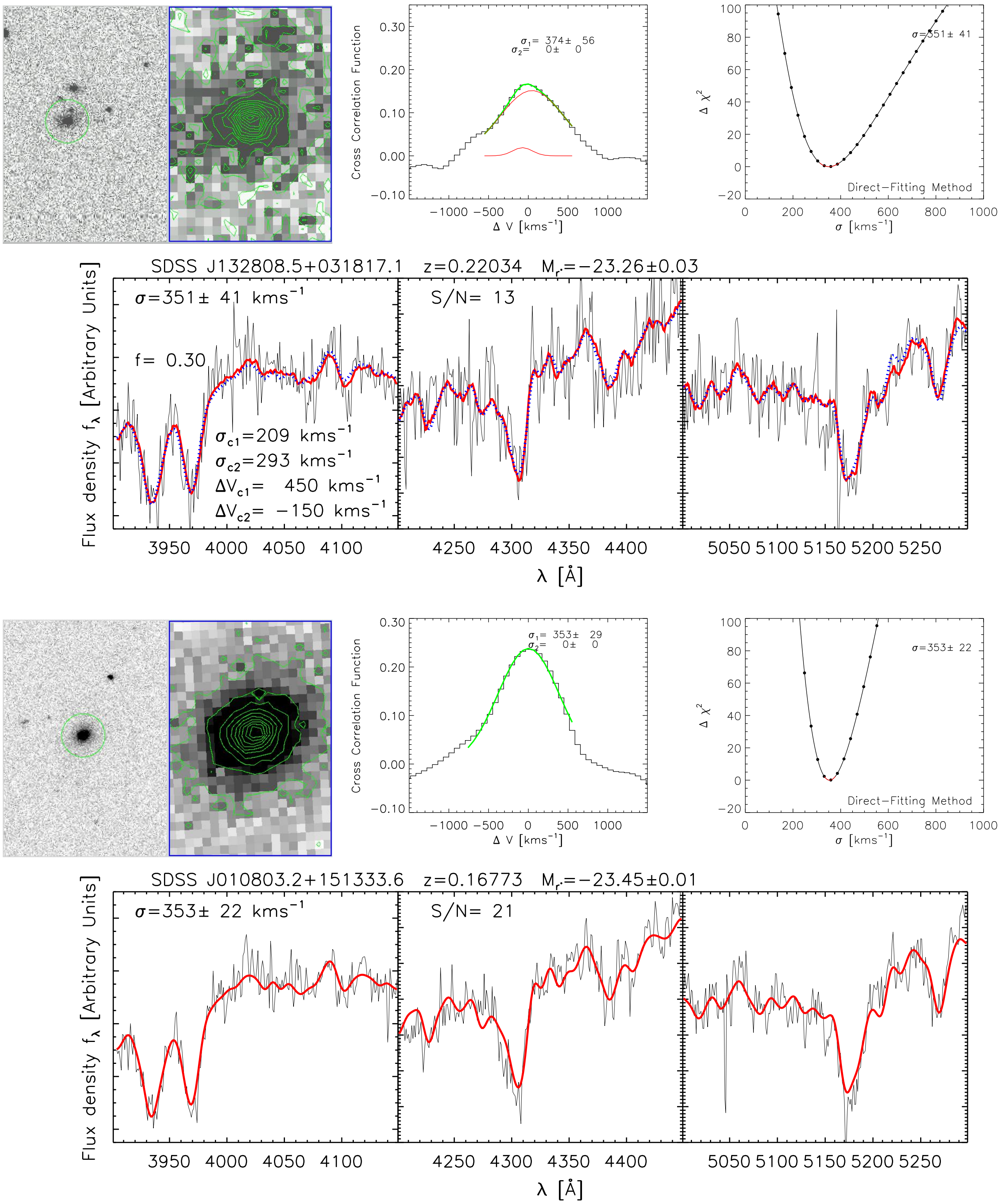


Fig. B1.— Continued.

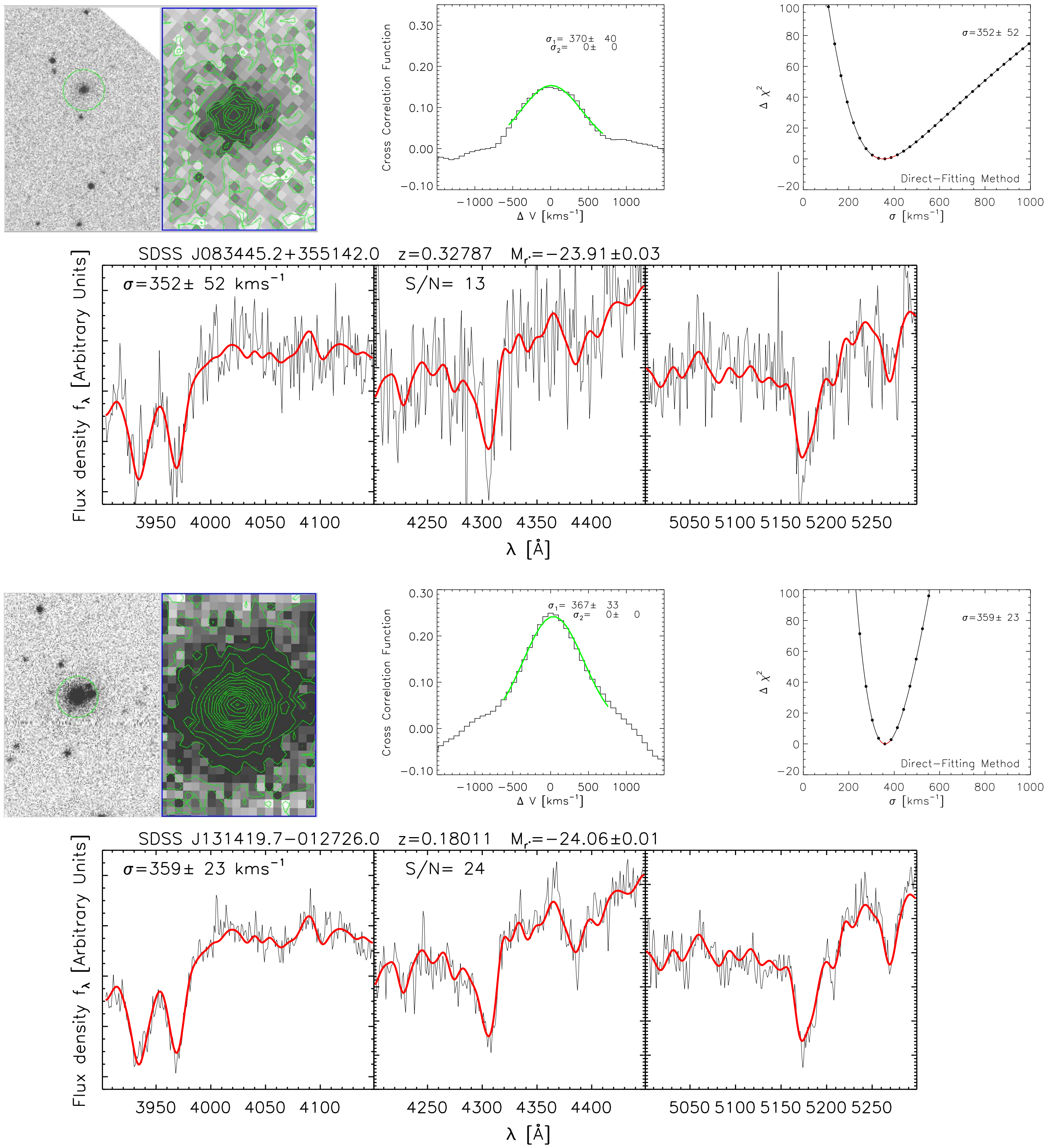
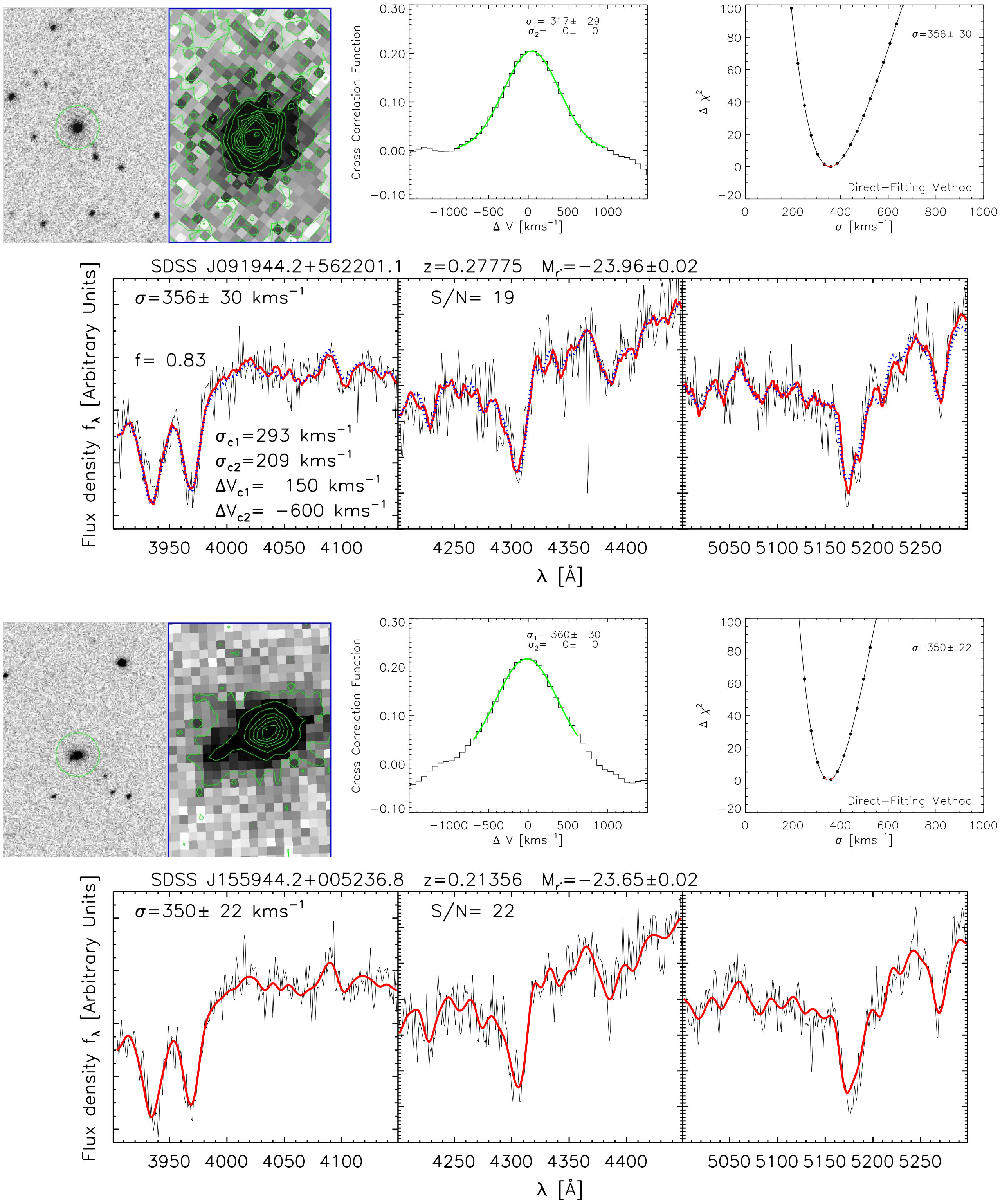


Fig. B1.— Continued.



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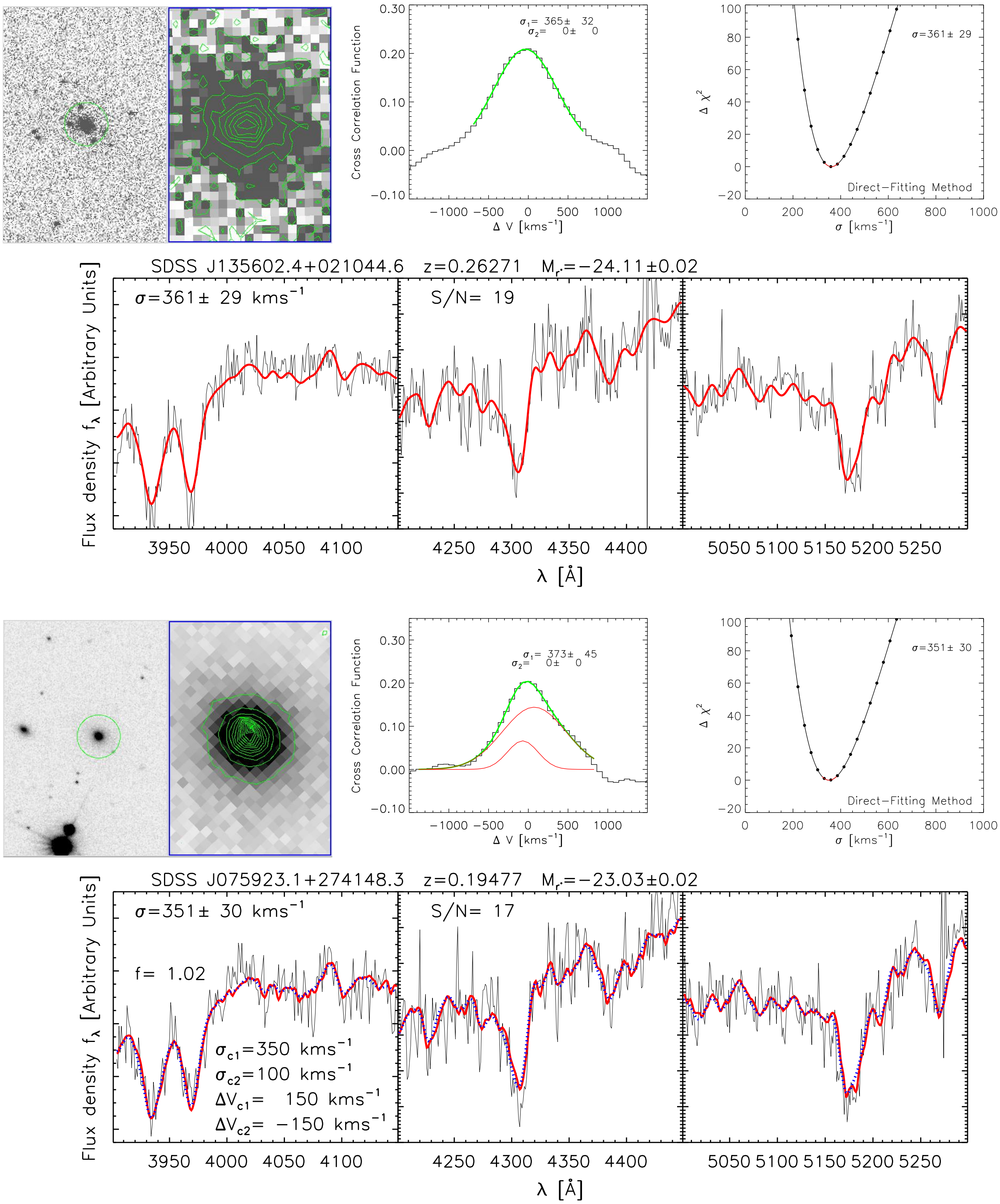
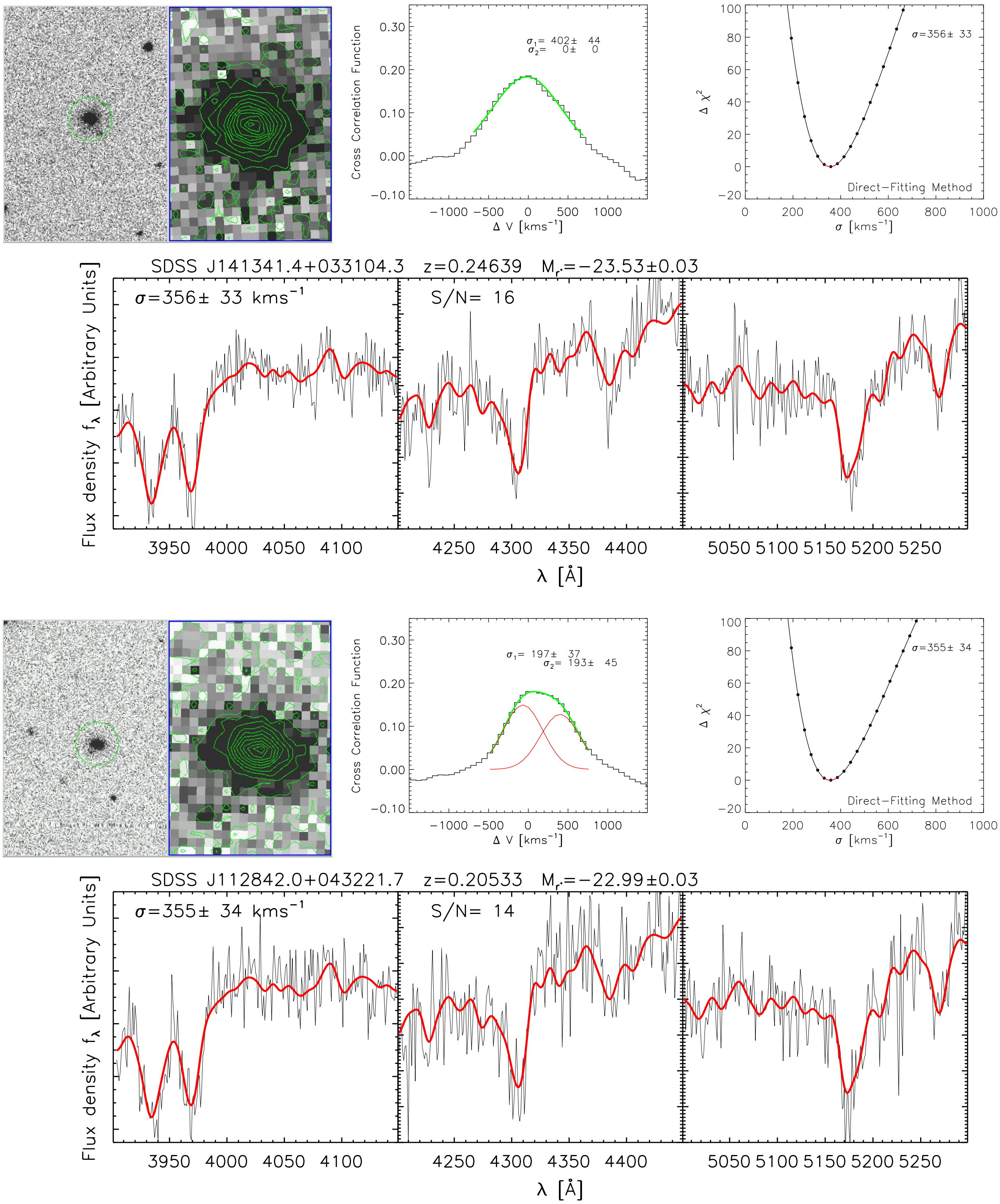


FIG. B1.— Continued.



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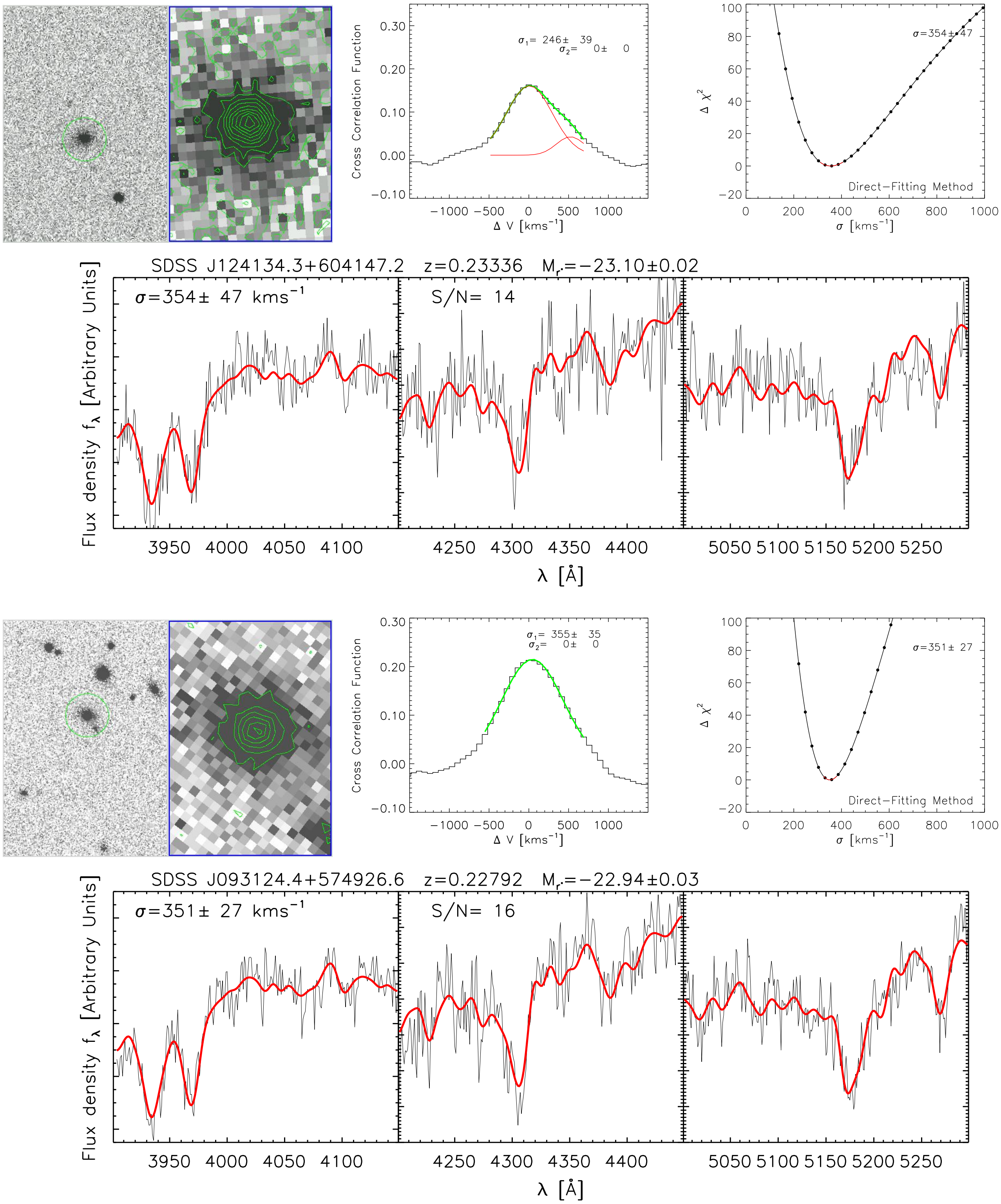
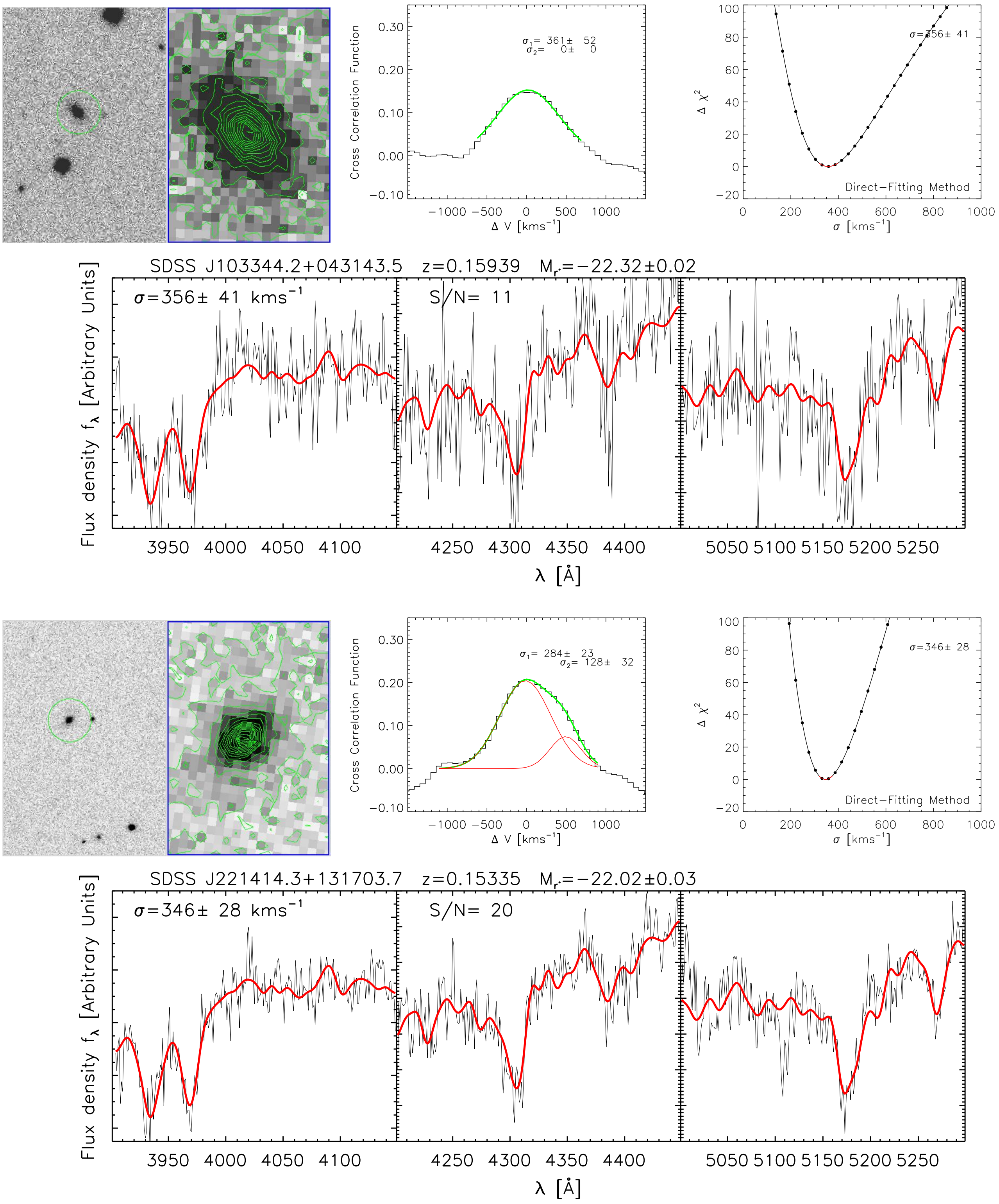


Fig. B1.— Continued.



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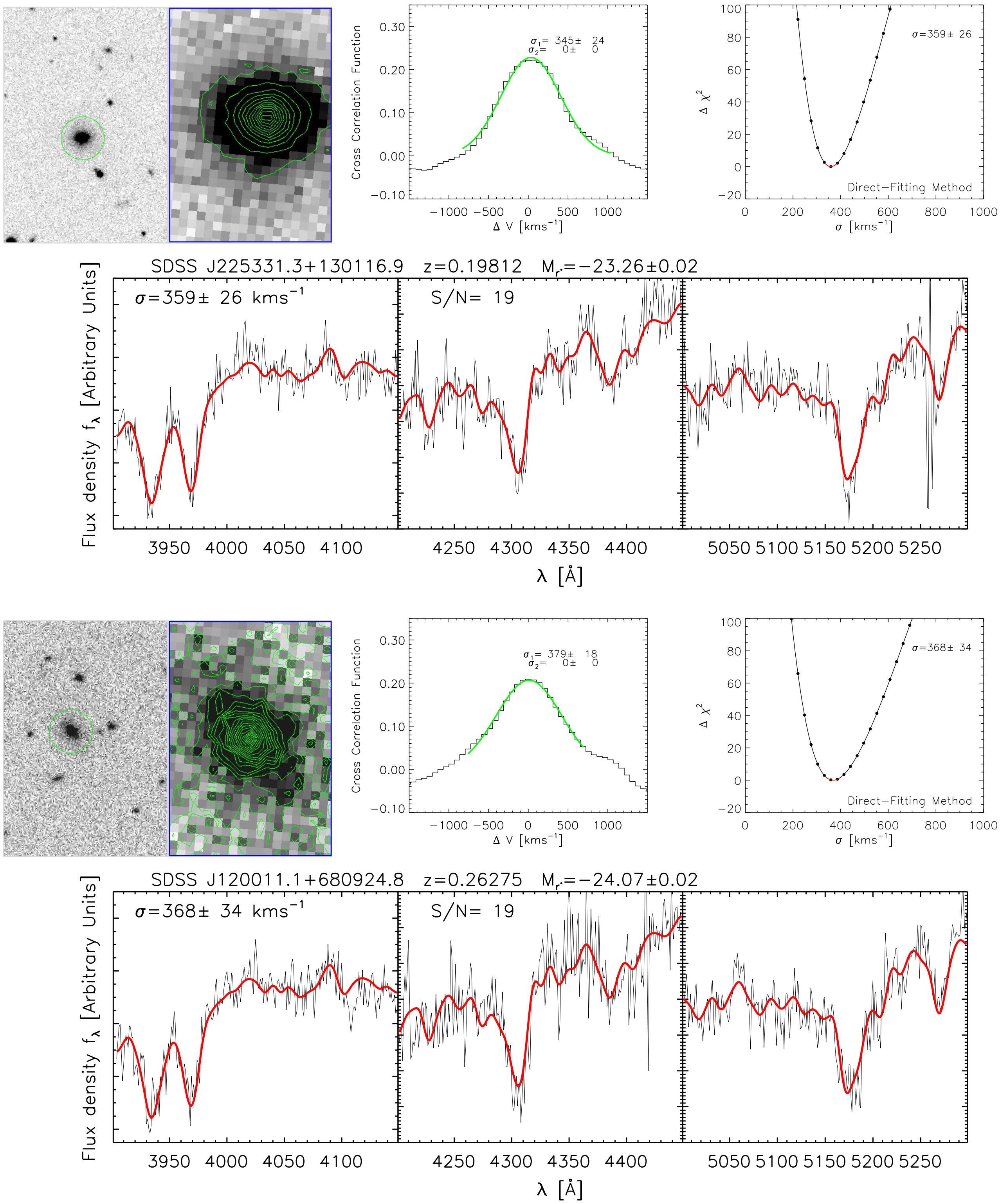


Fig. B1.— Continued.

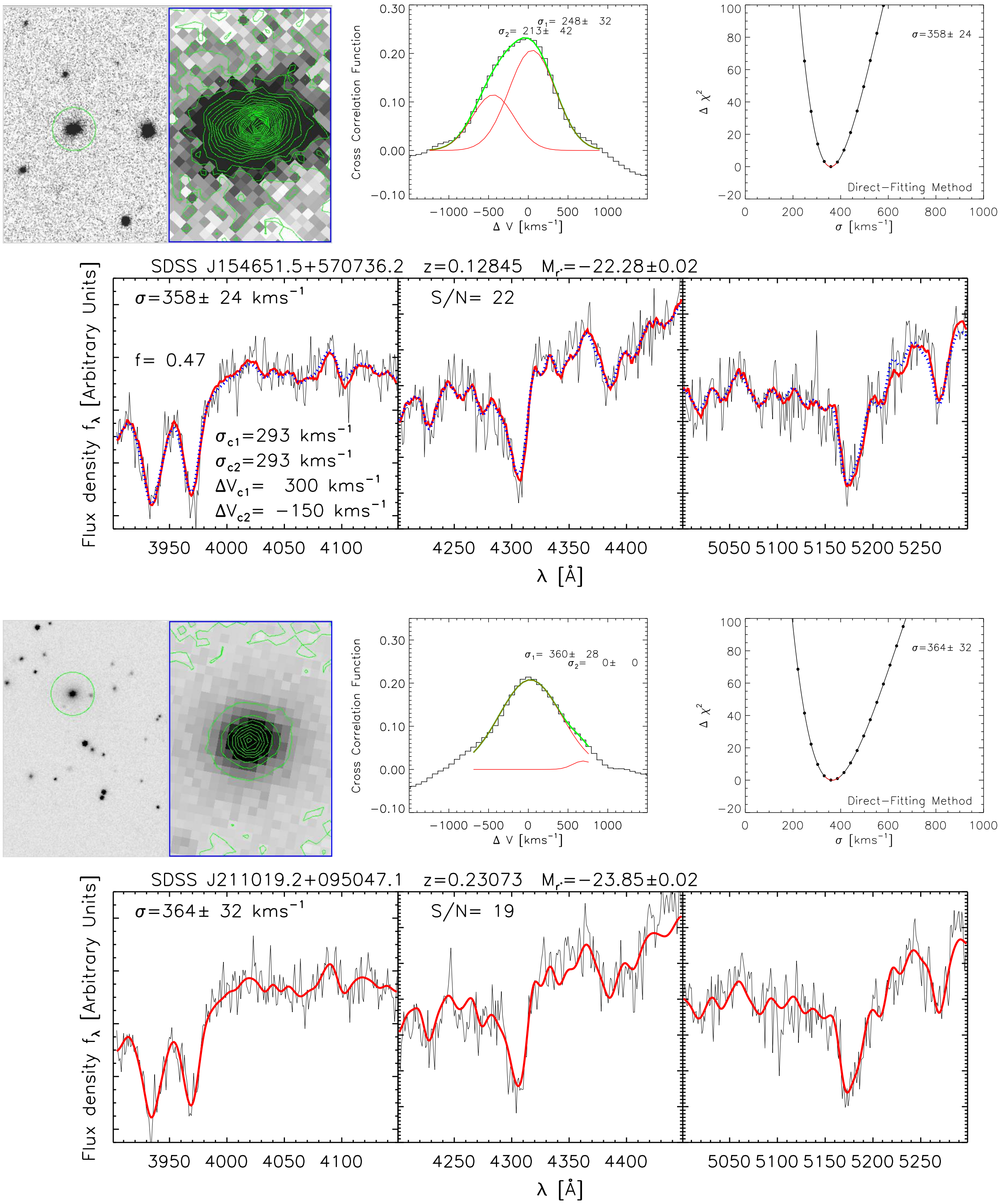


FIG. B1.— Continued.

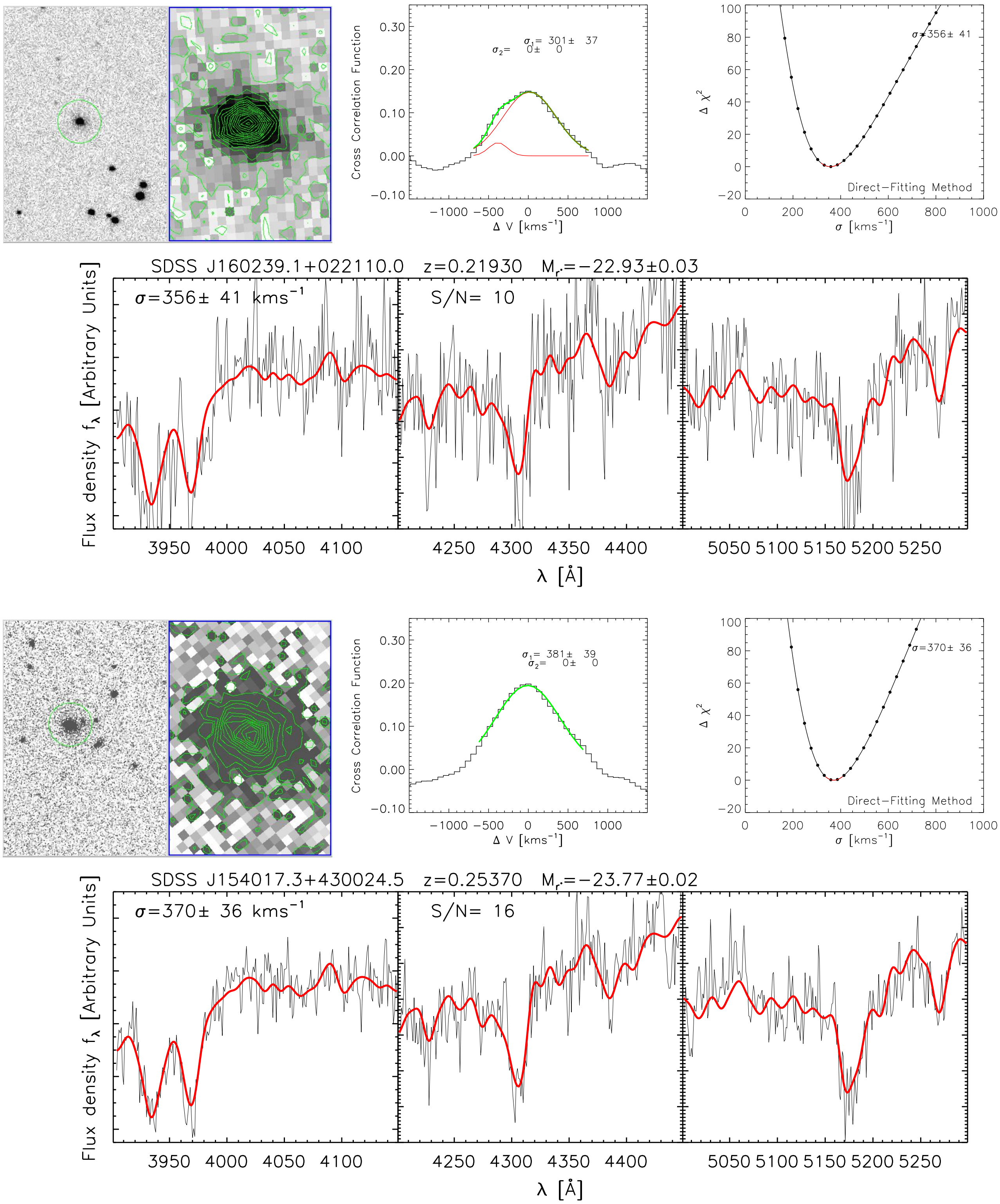


FIG. B1.— Continued.

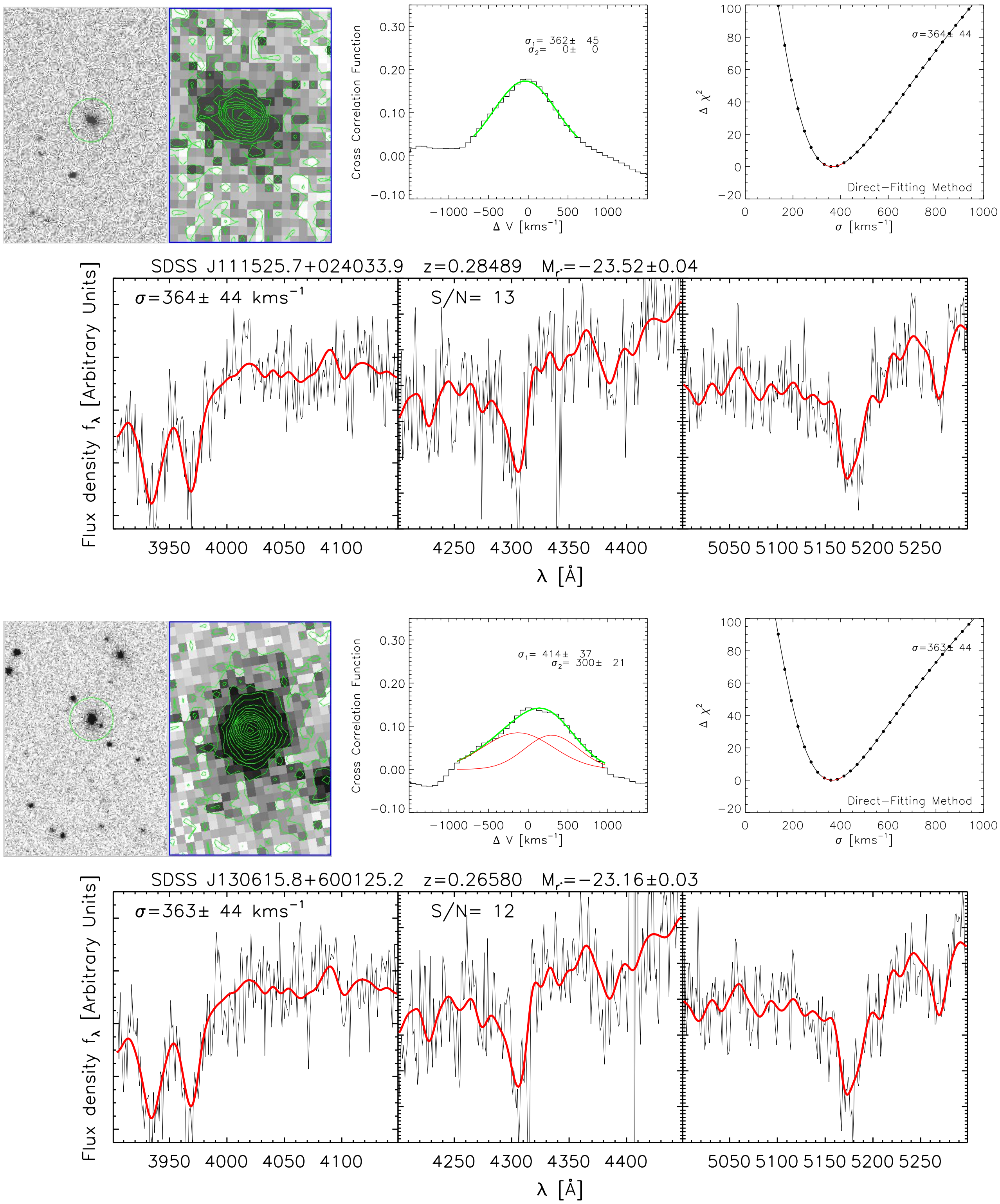


FIG. B1.— Continued.

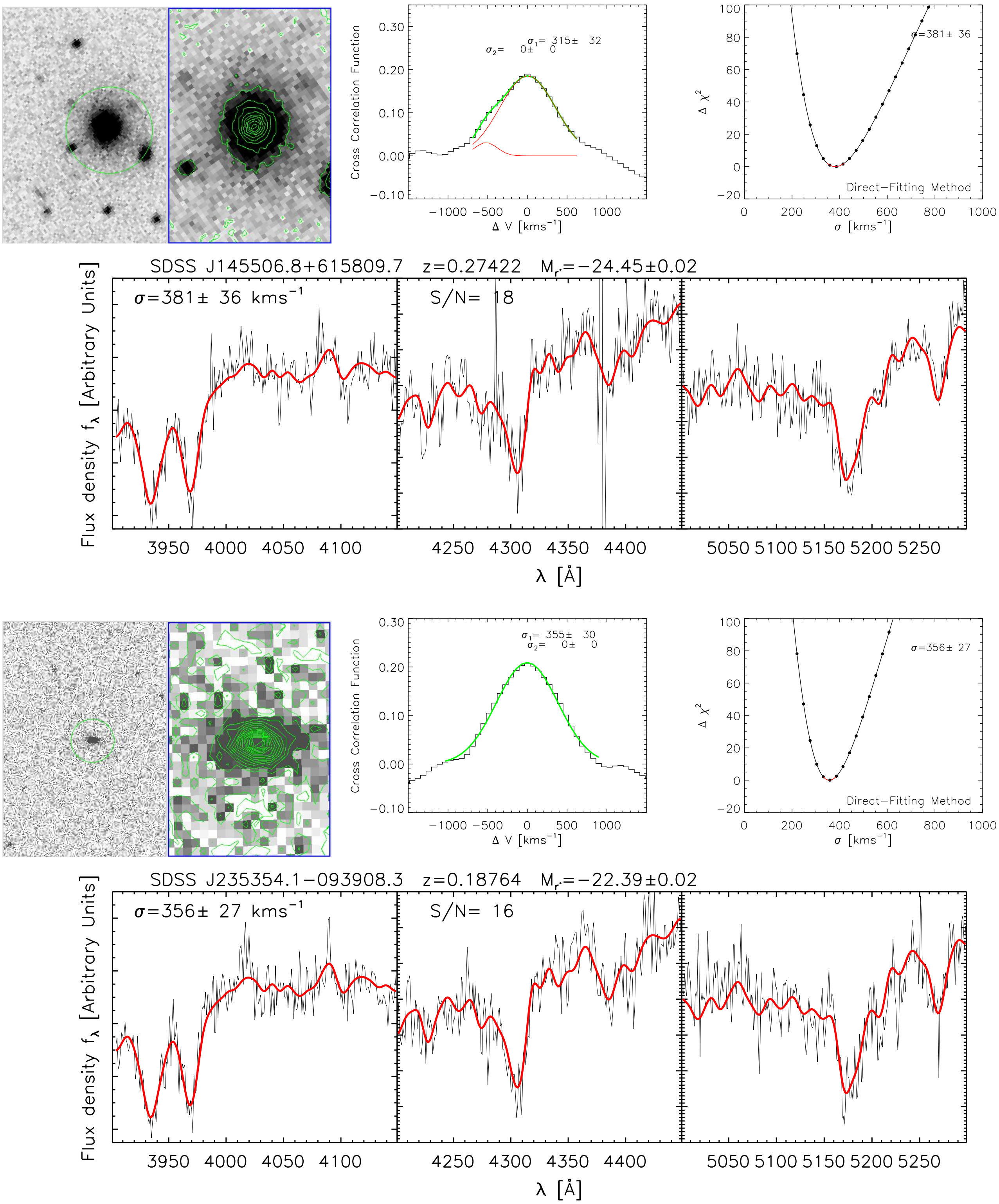


FIG. B1.— Continued.

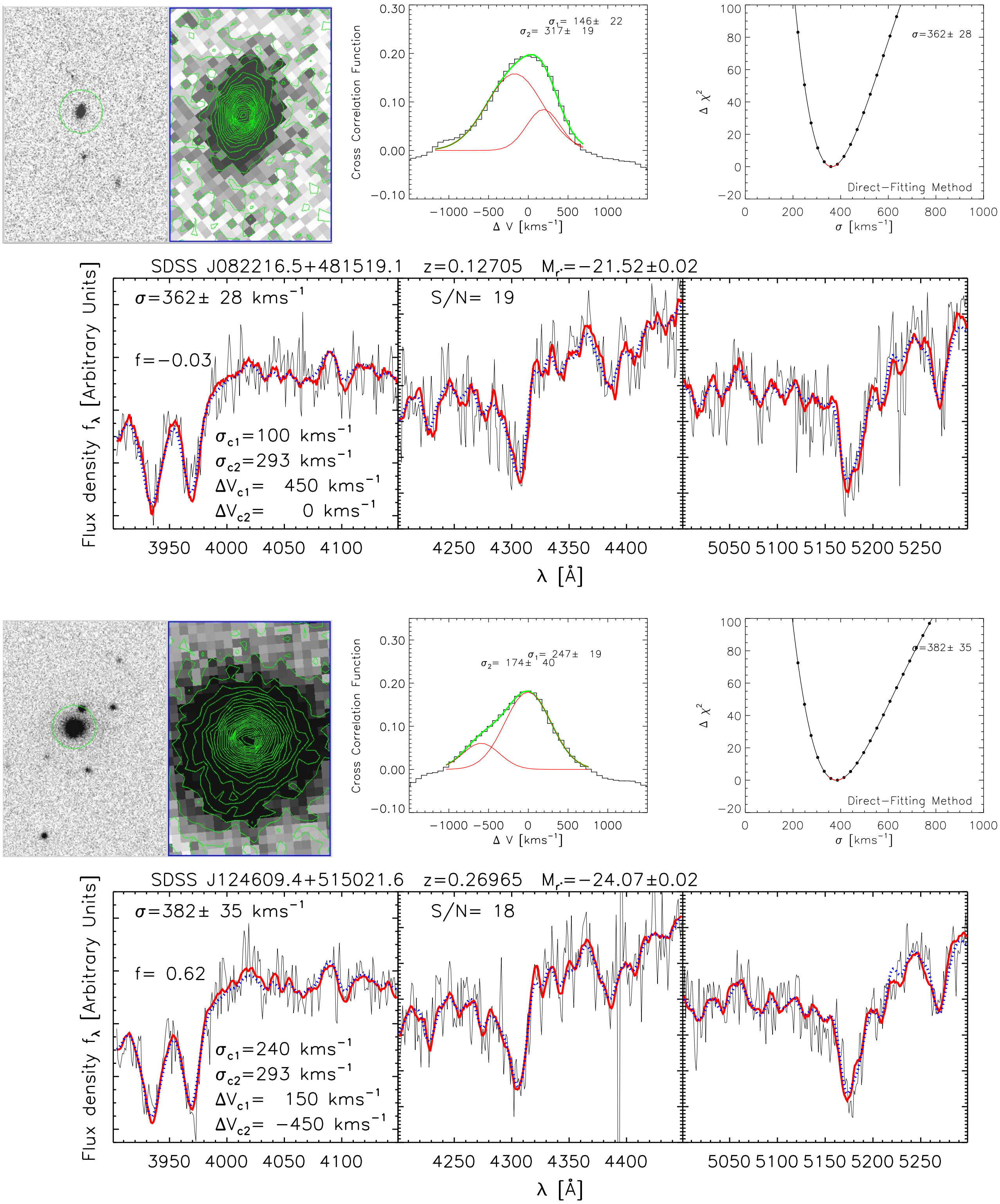
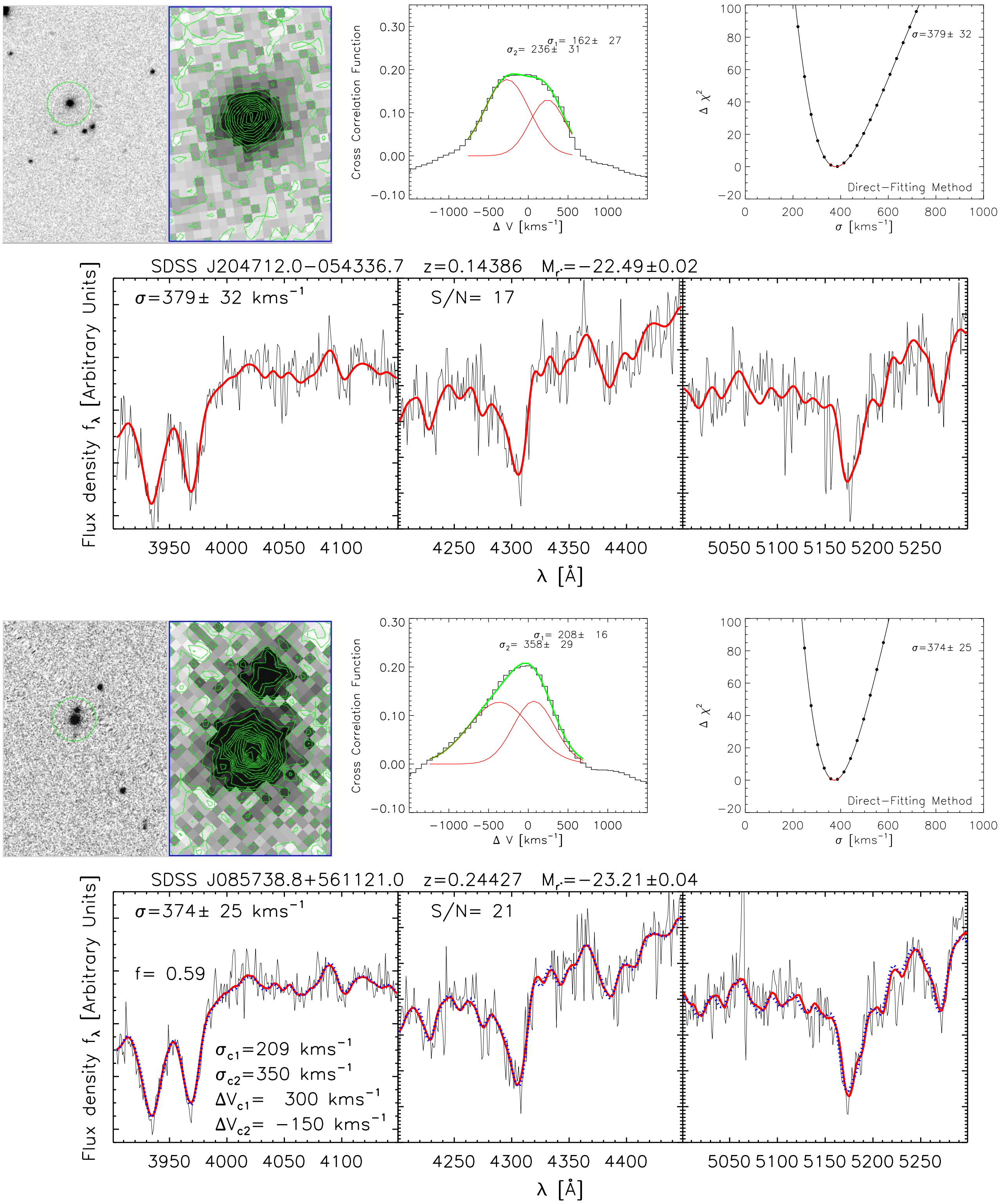


Fig. B1.— Continued.



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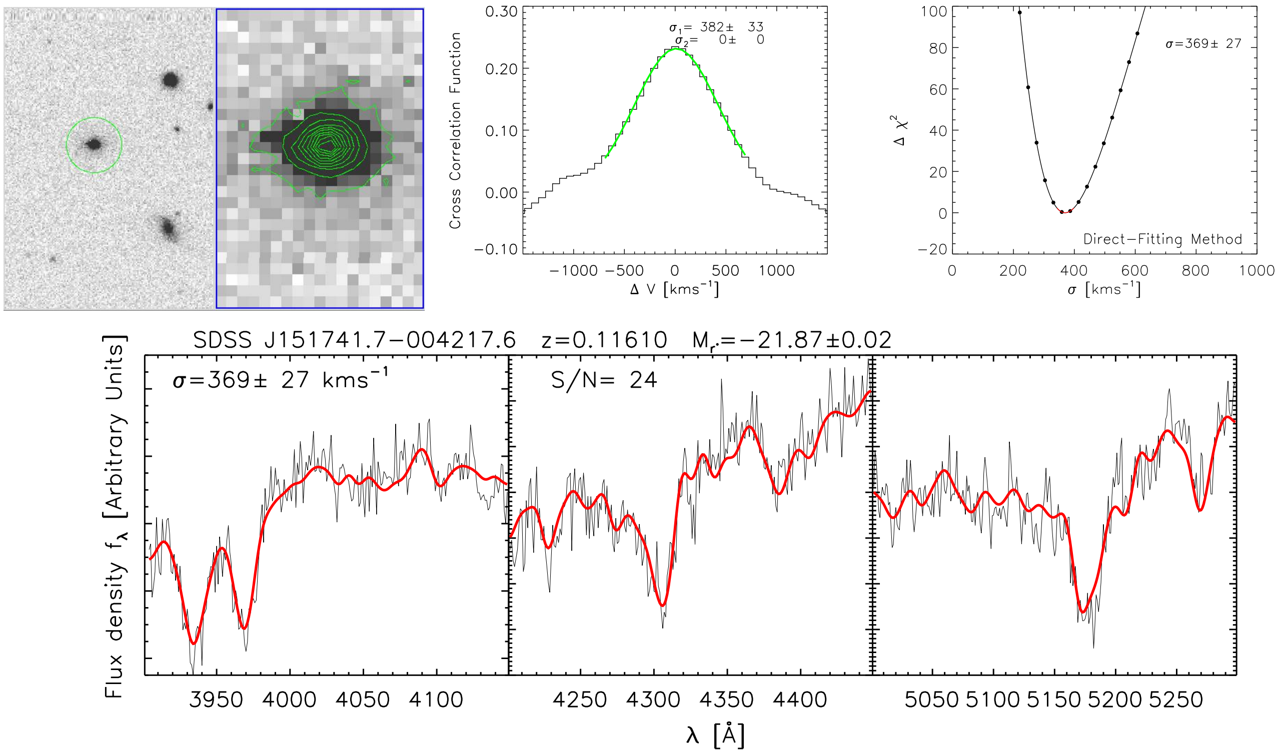


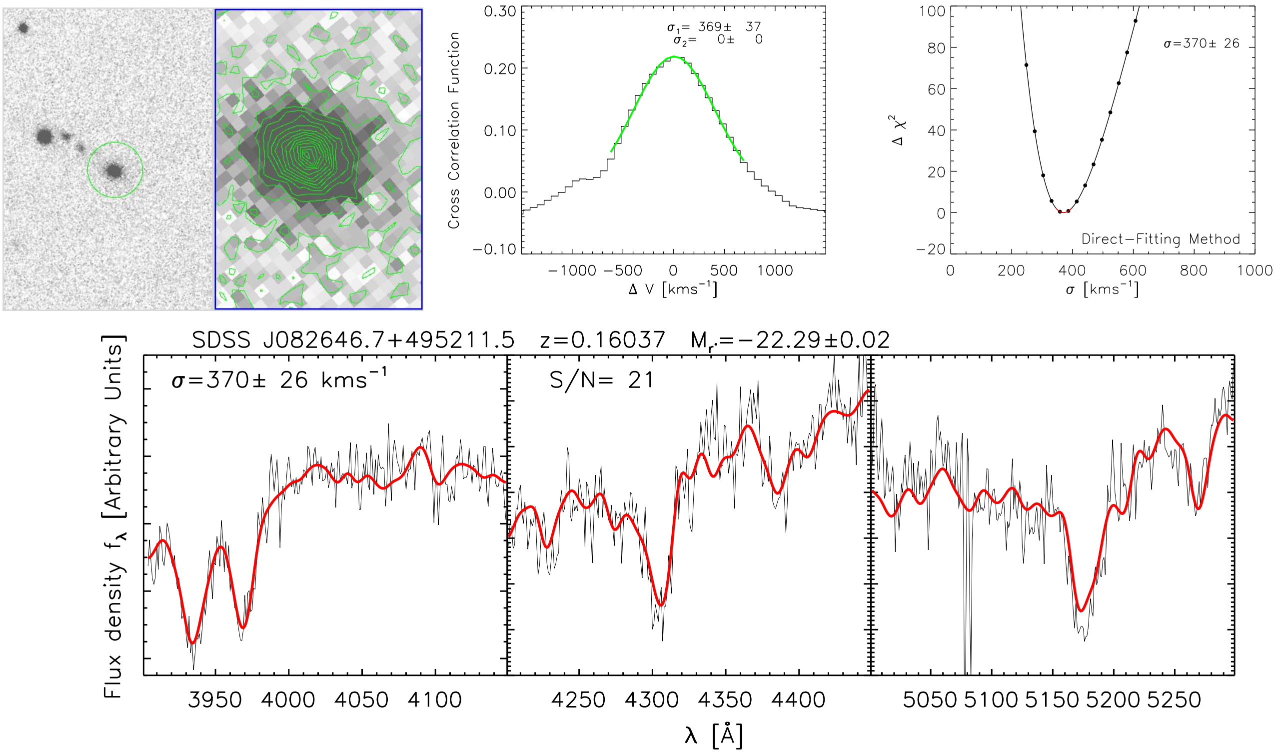


FIG. B1.— Continued.

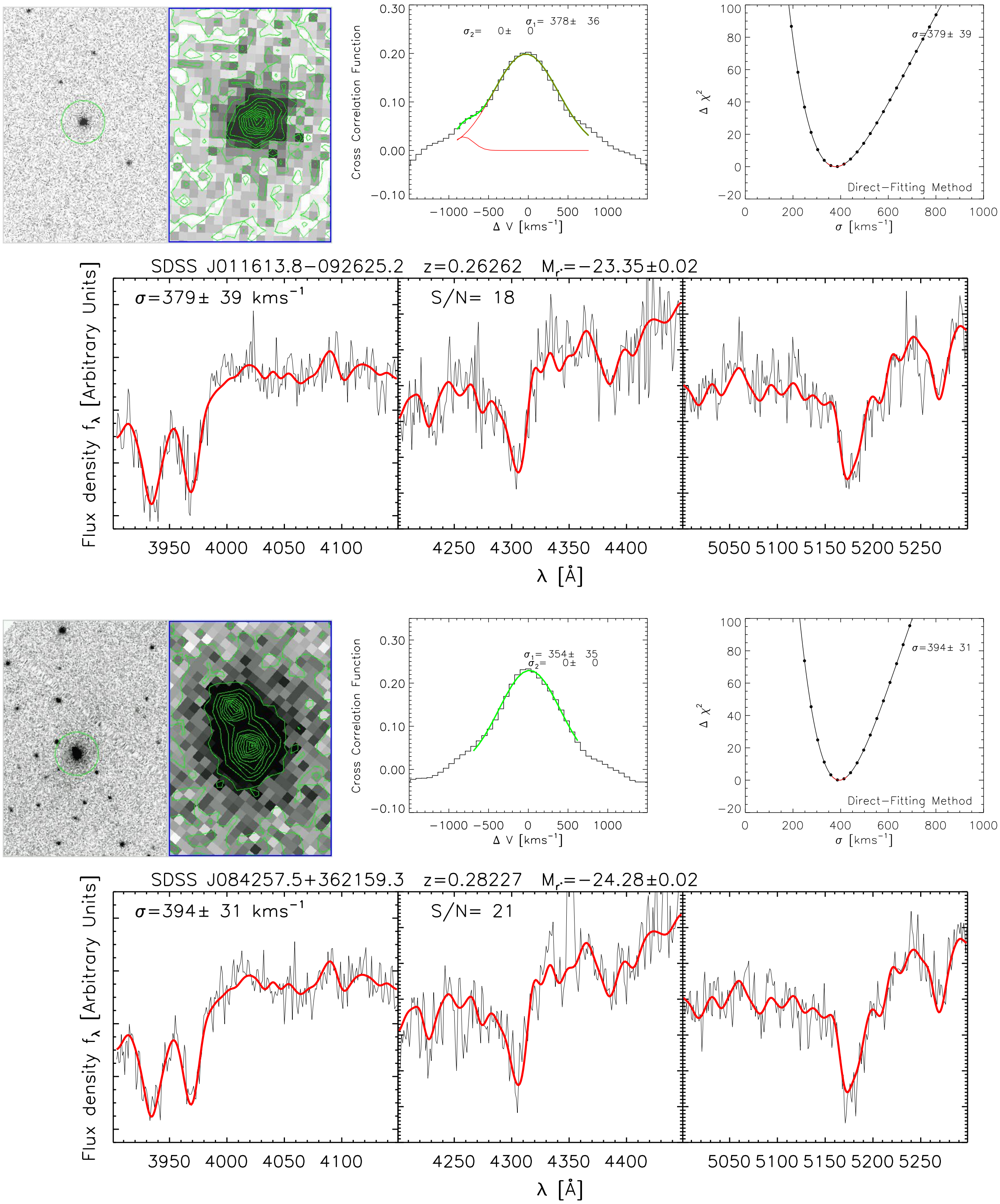


FIG. B1.— Continued.

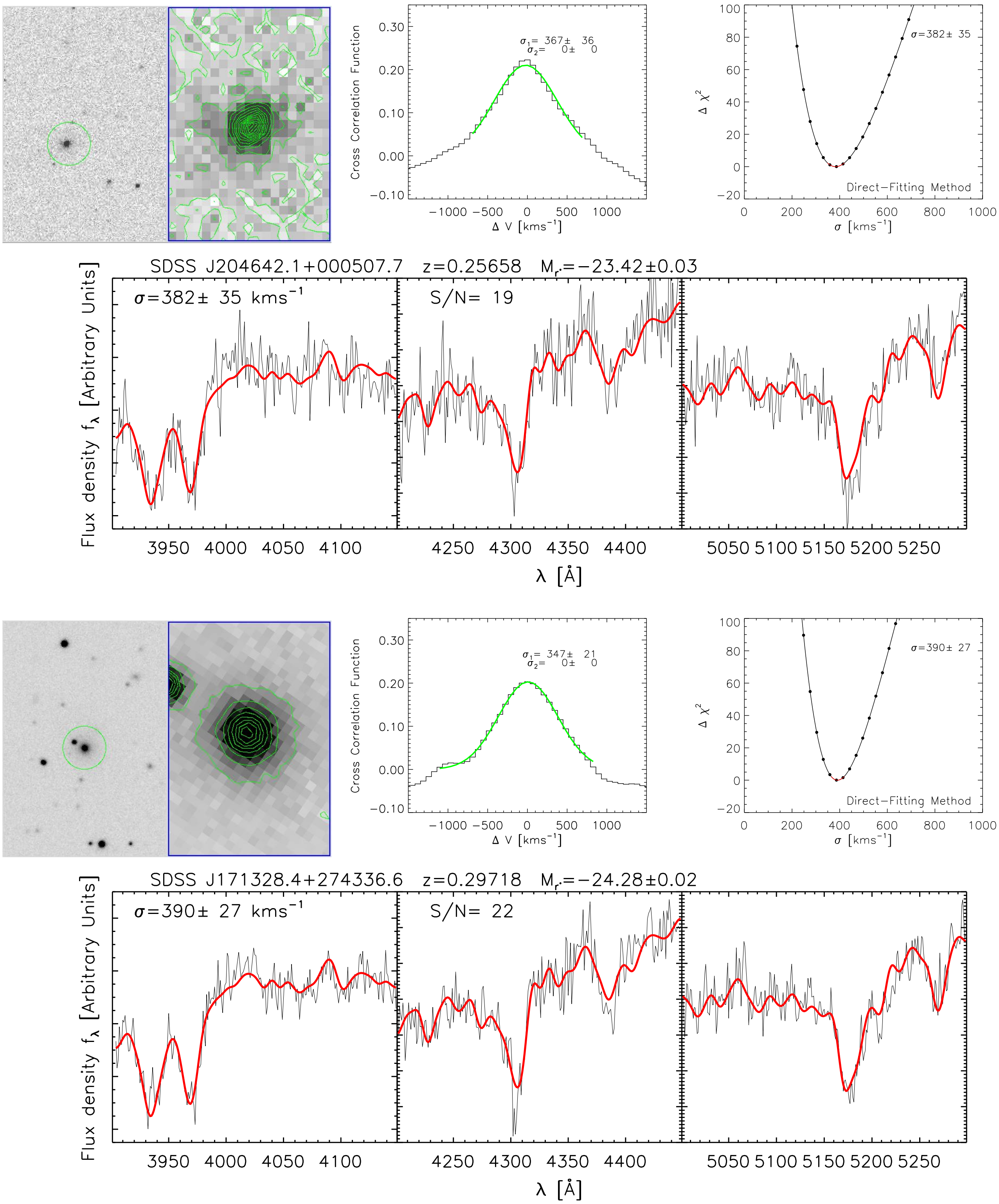


Fig. B1.— Continued.

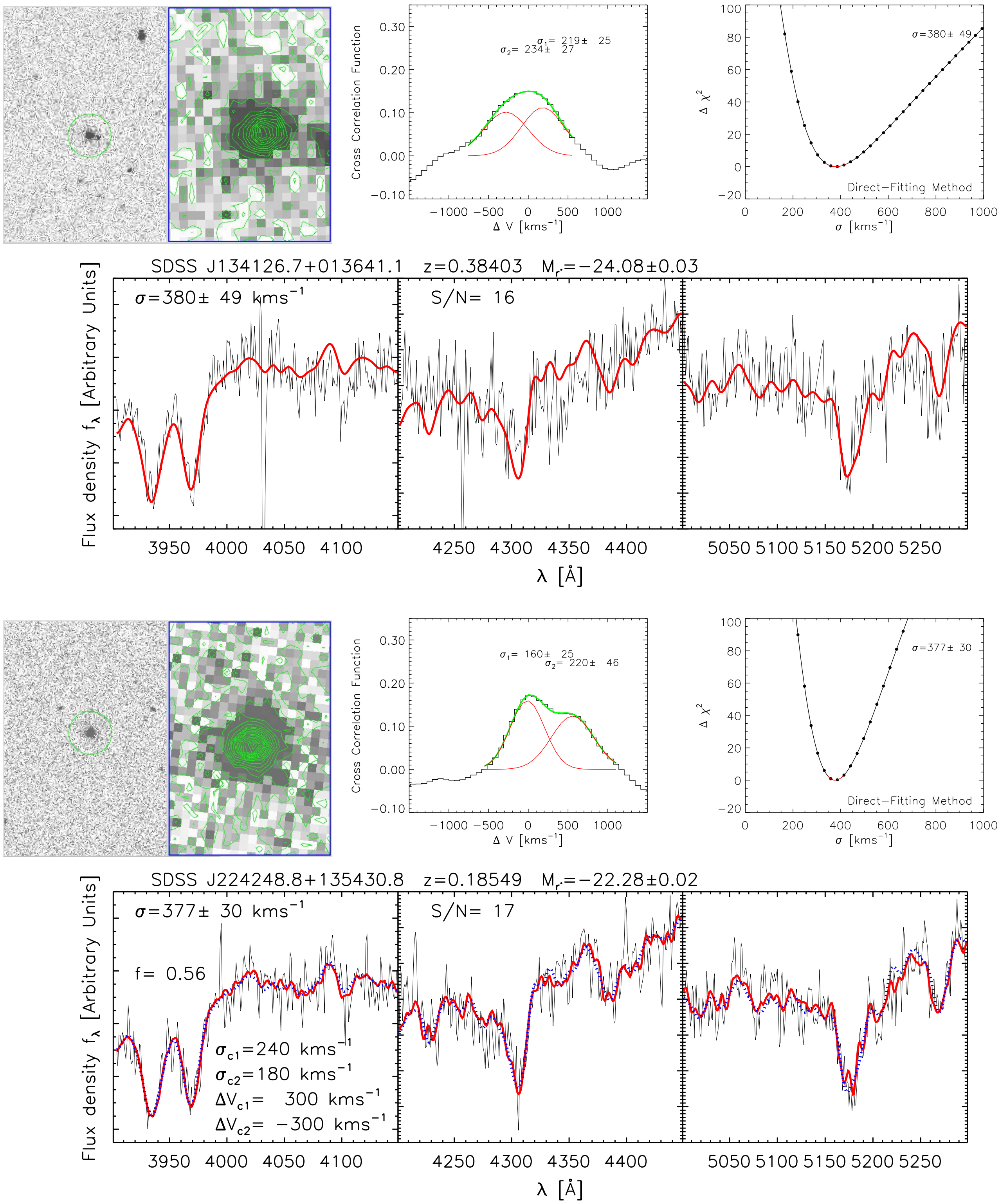
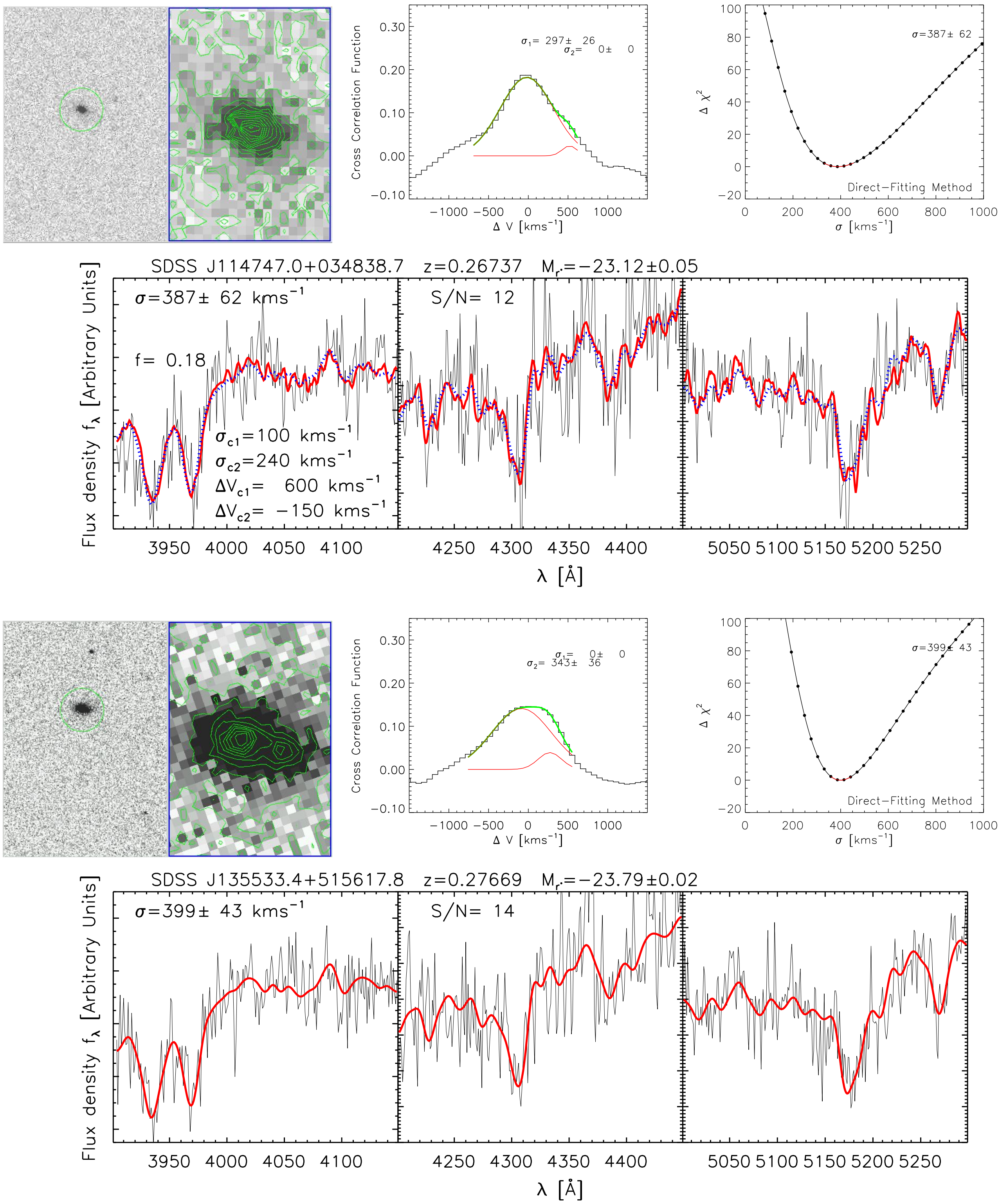


FIG. B1.— Continued.



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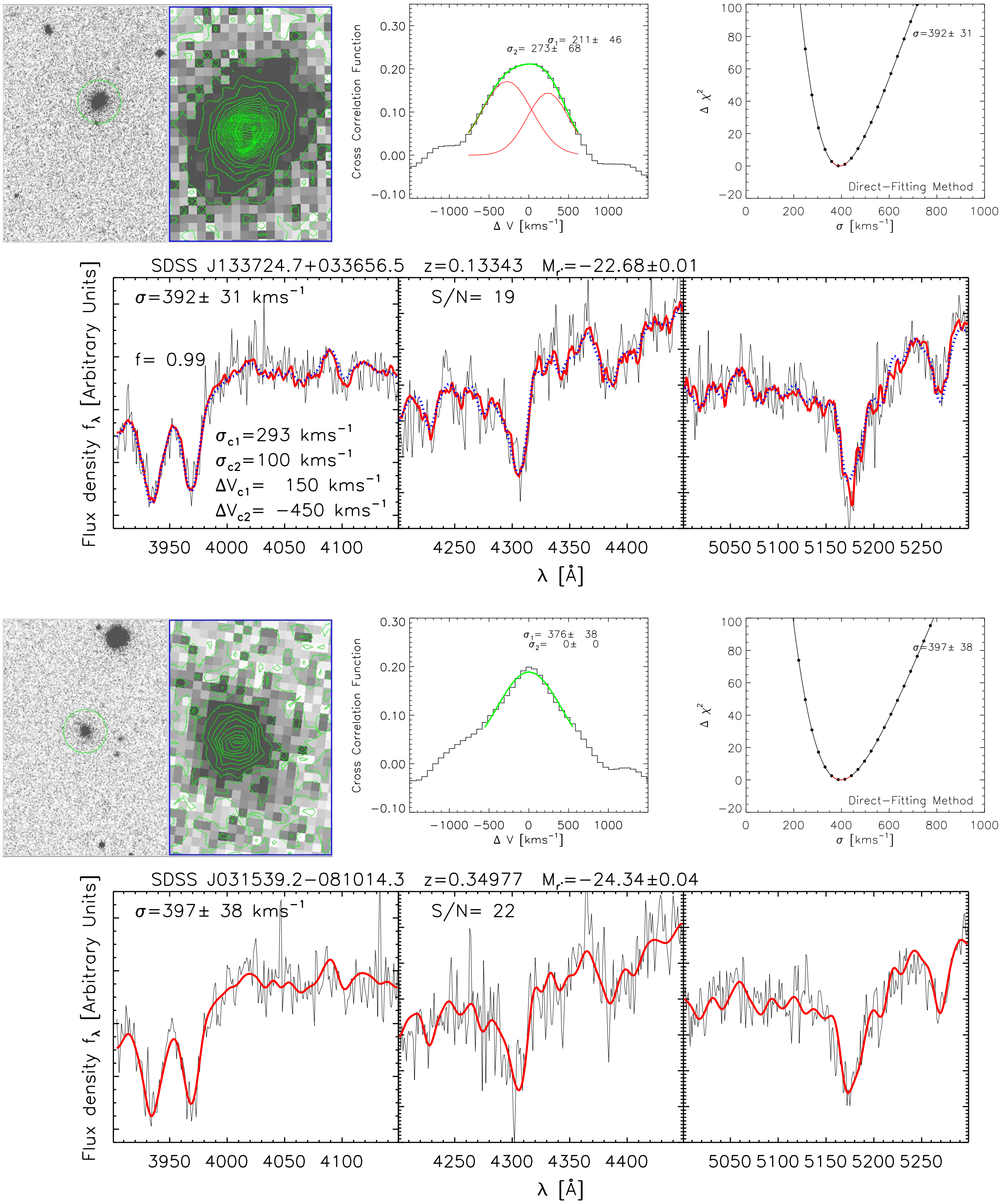
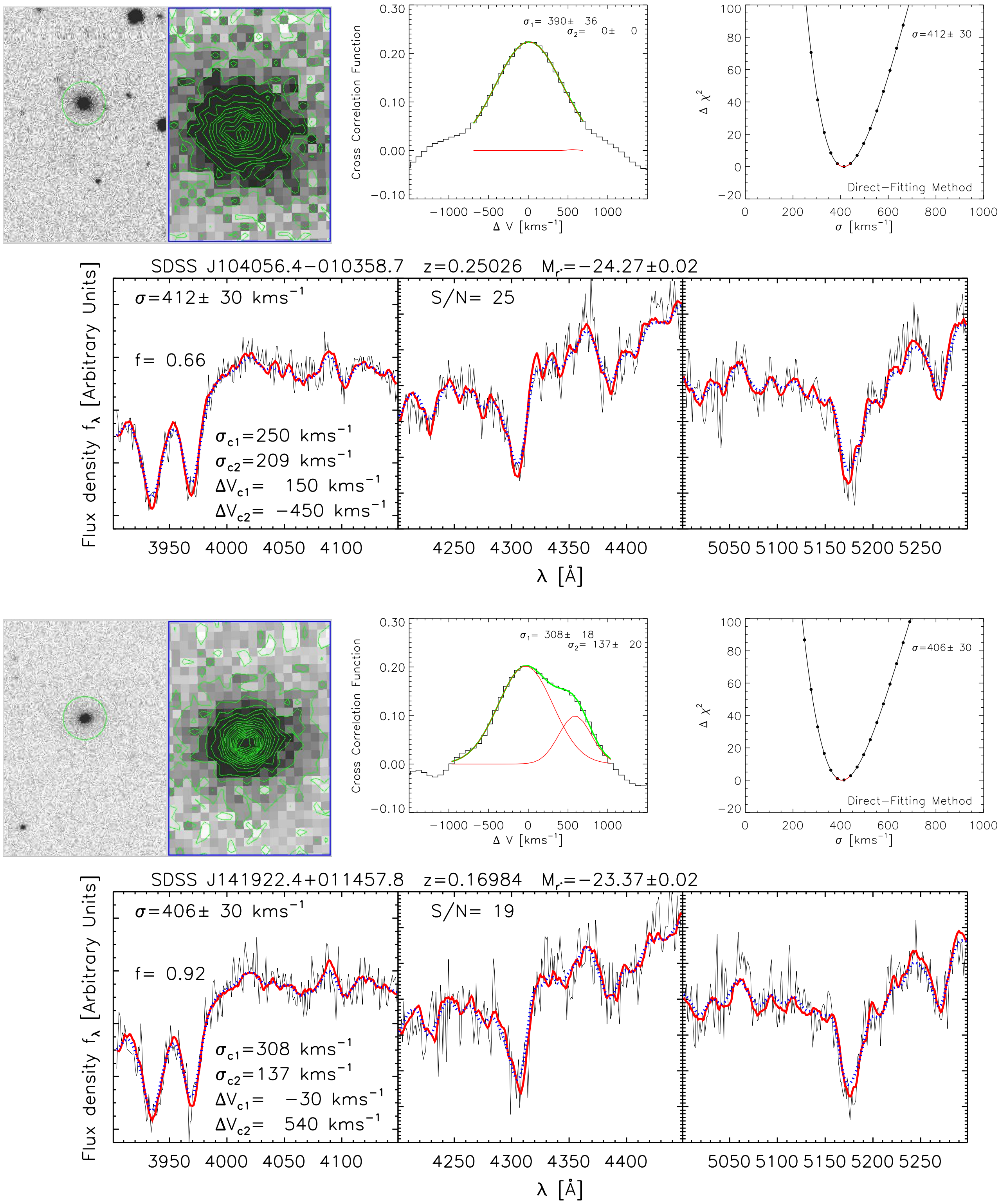


Fig. B1.— Continued.



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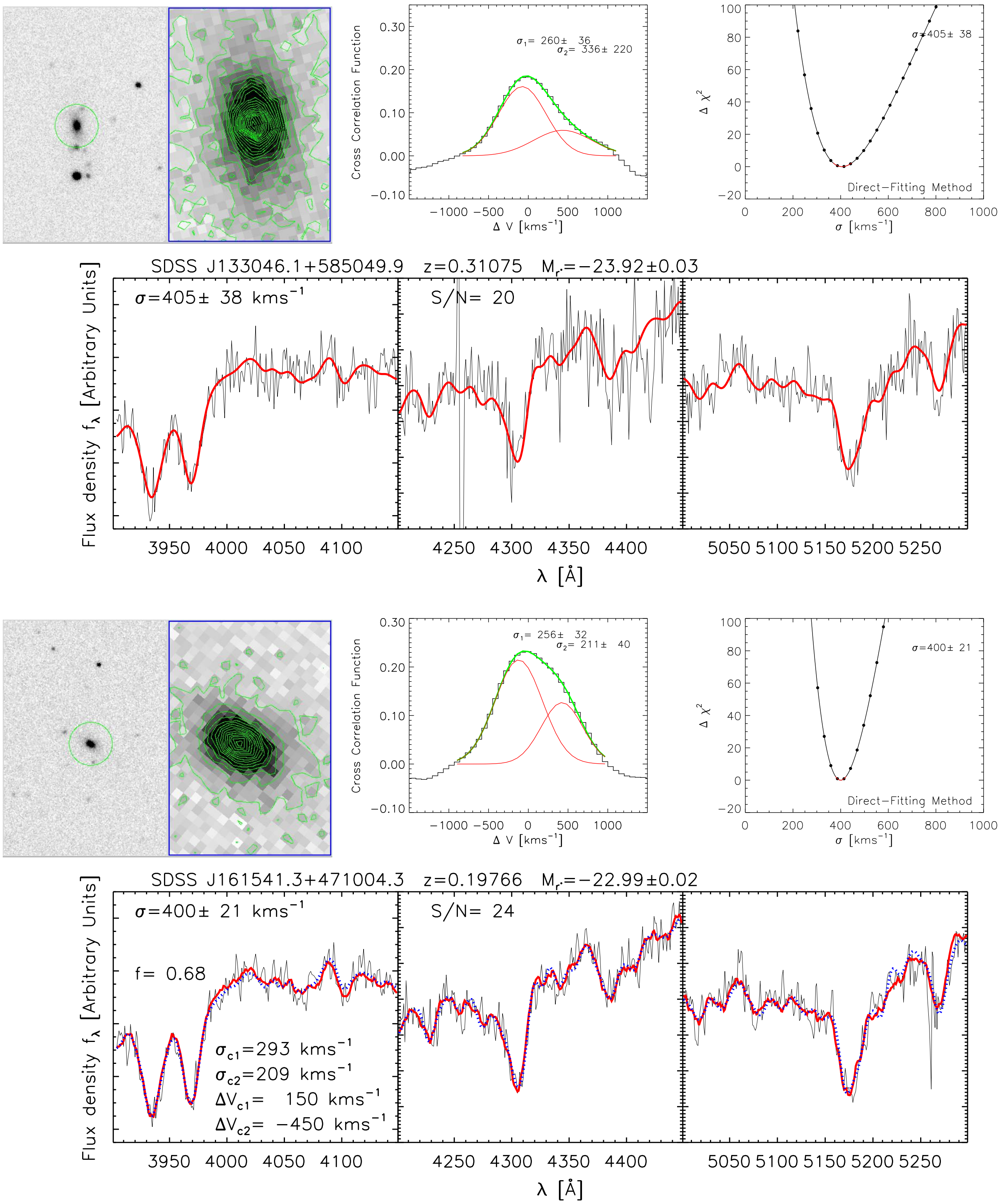

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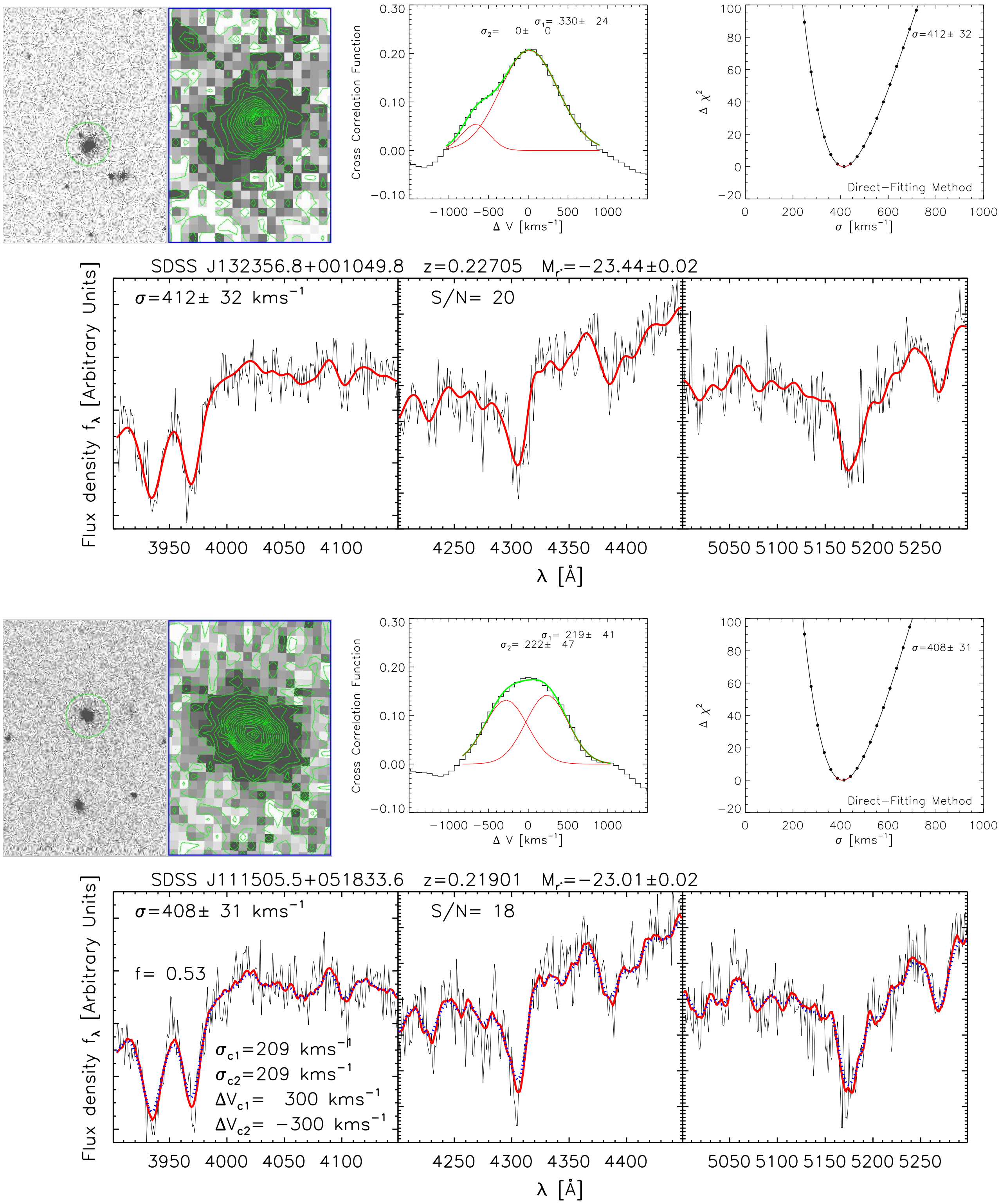

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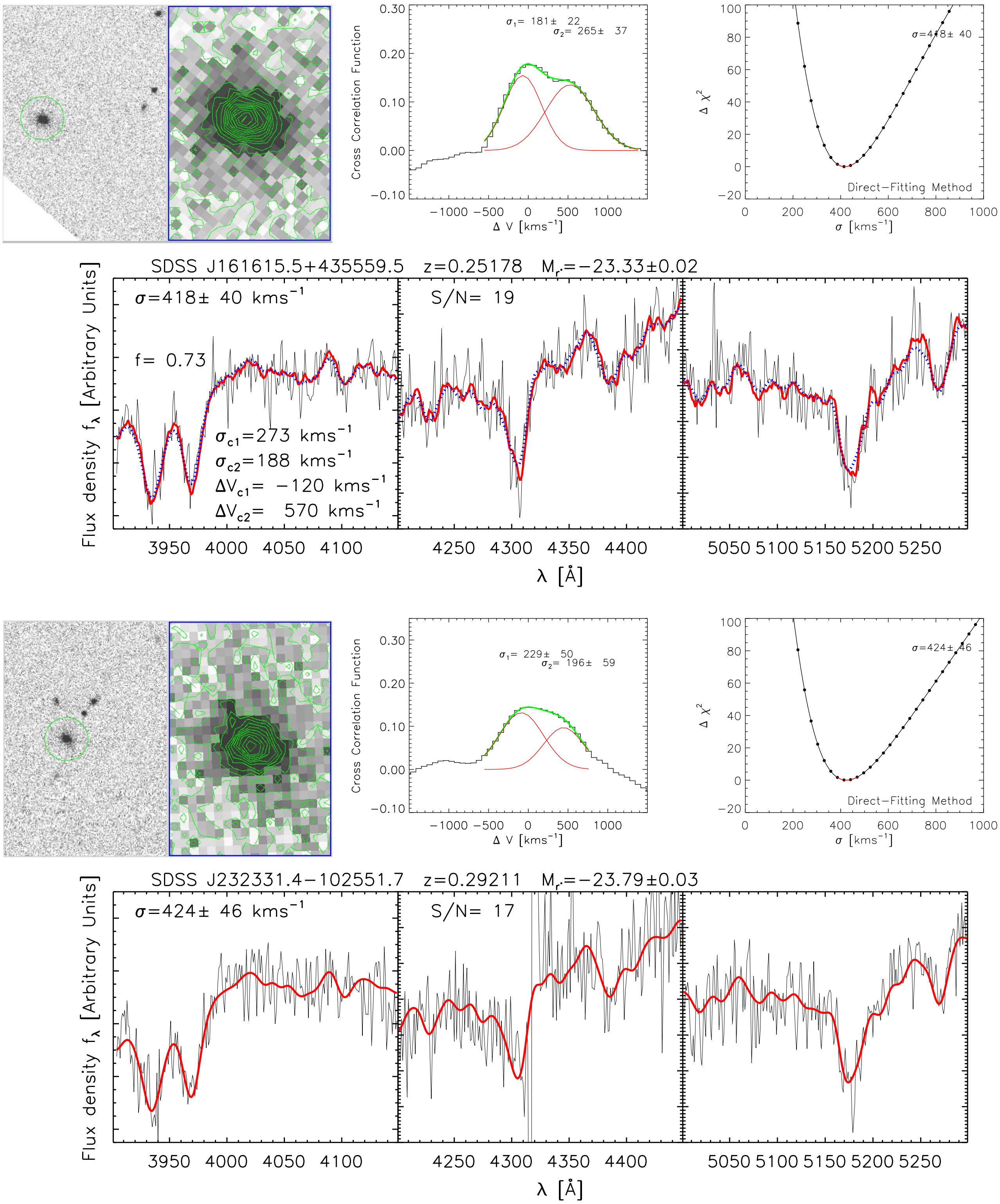

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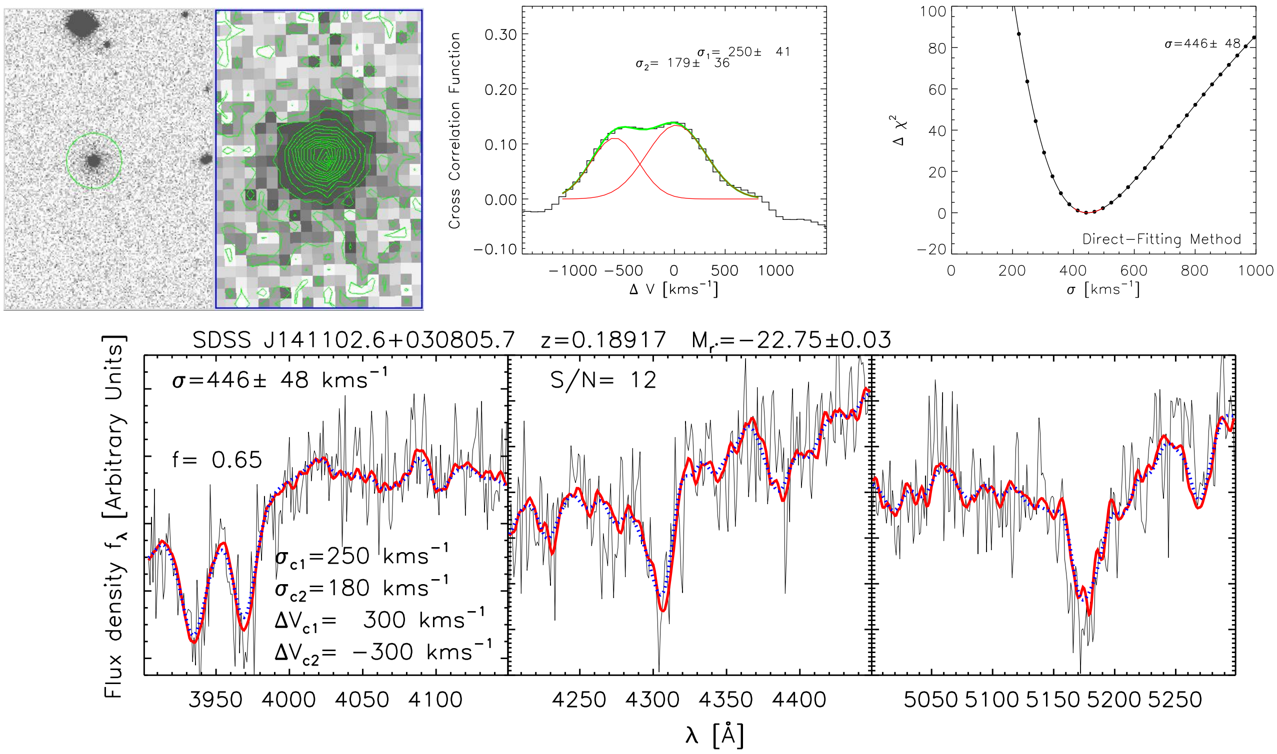

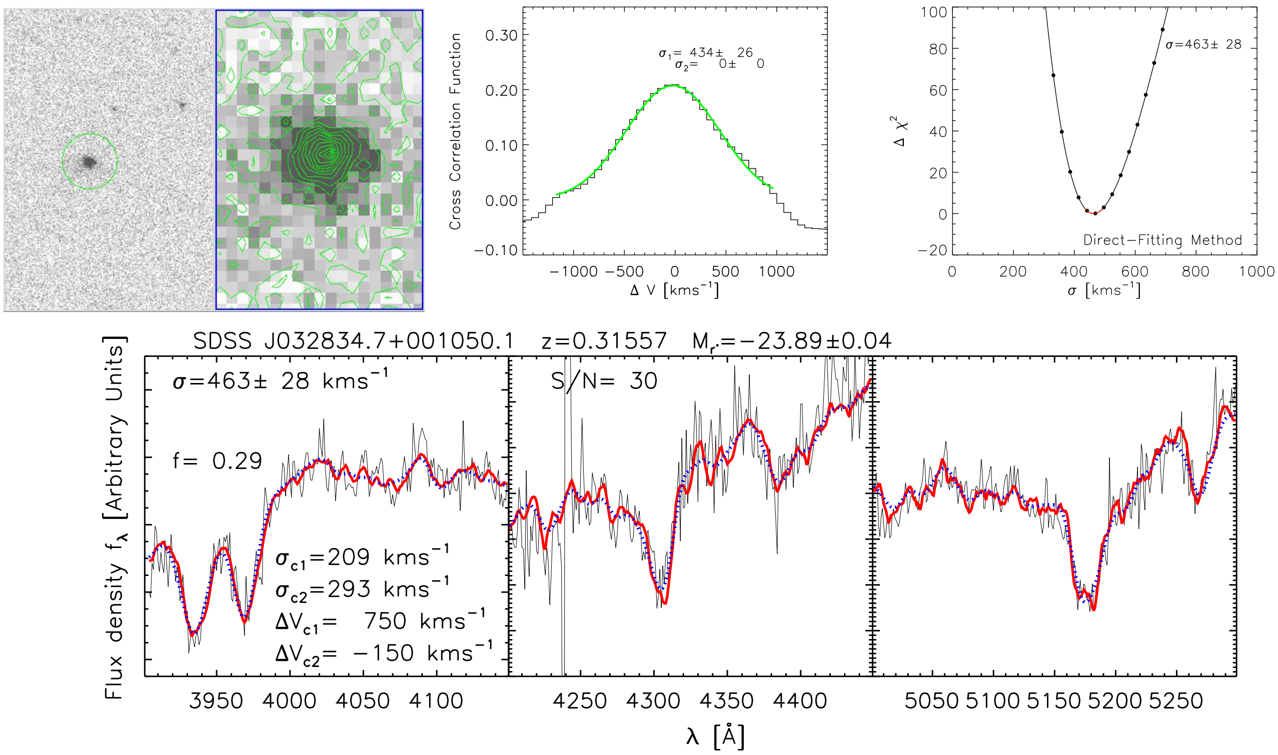

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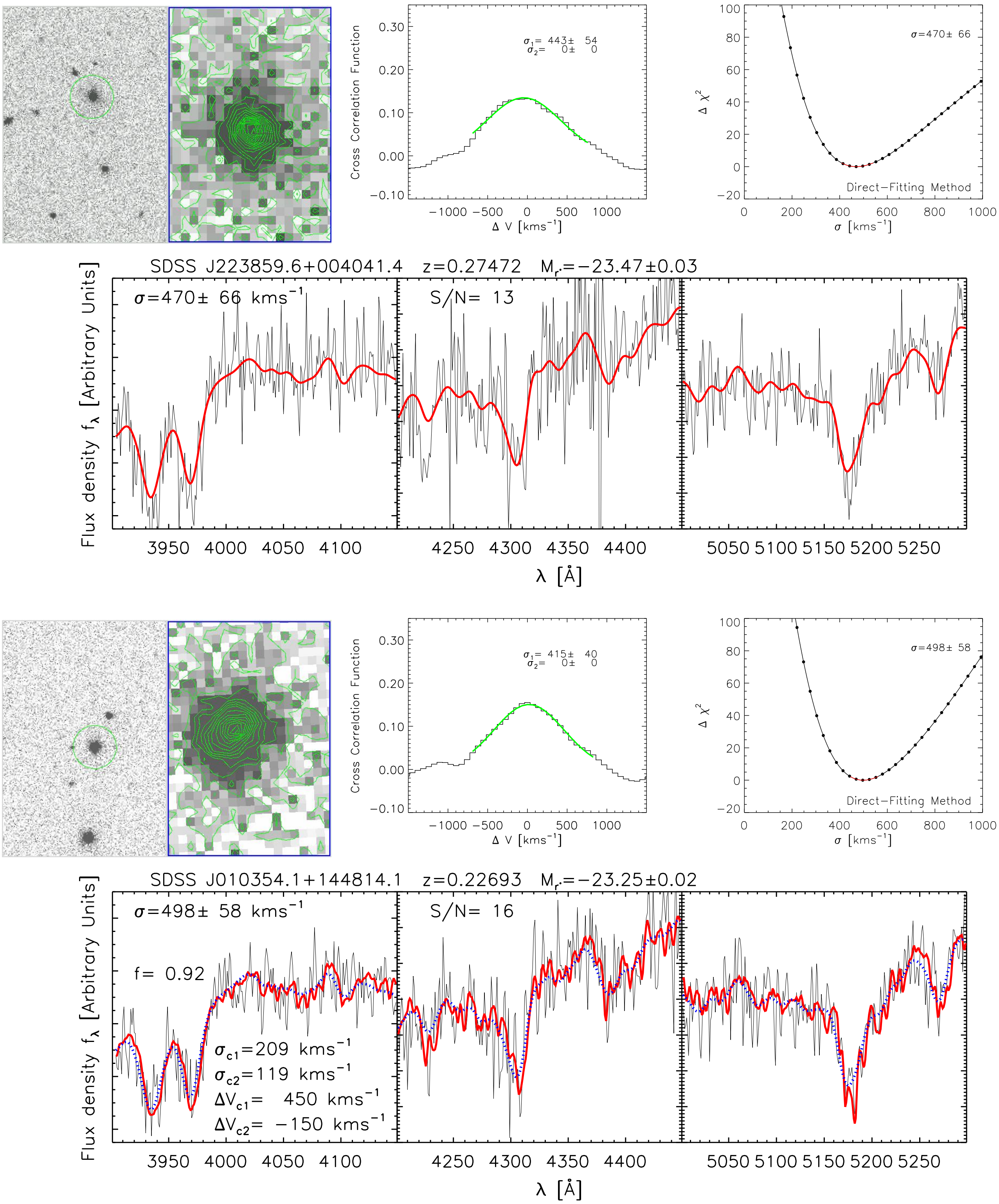

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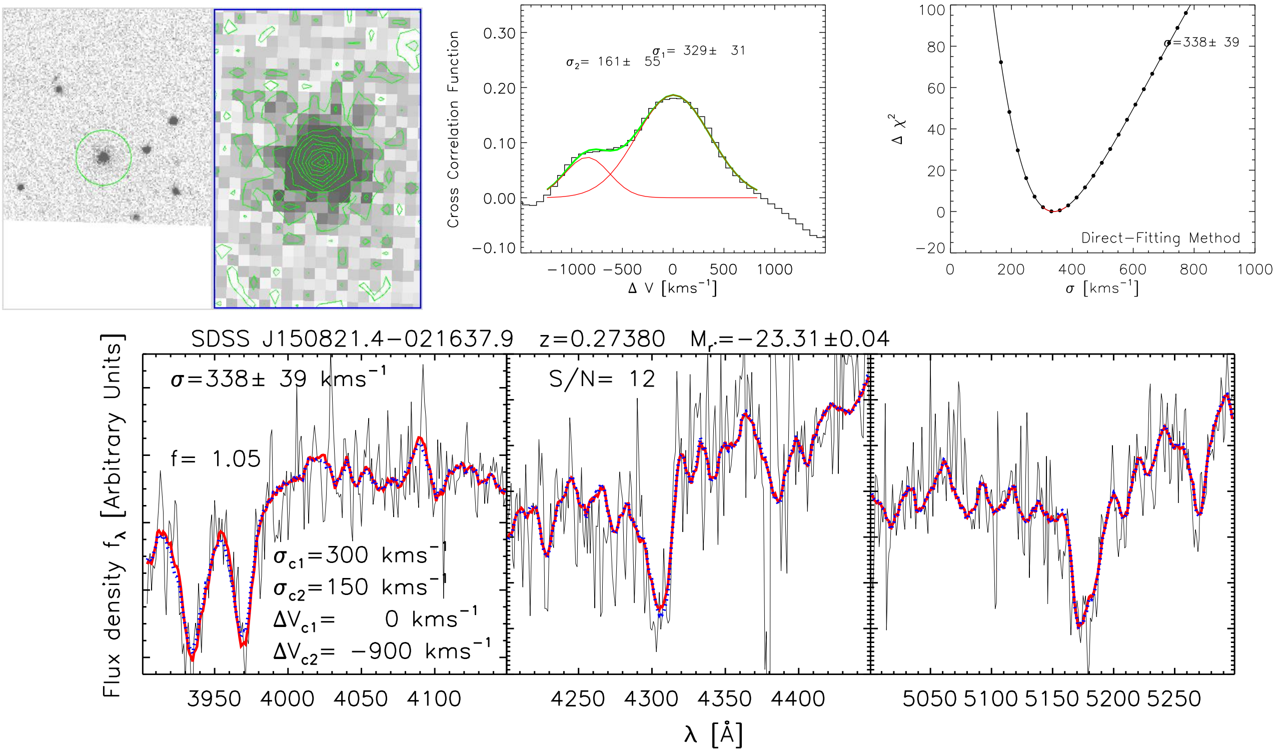
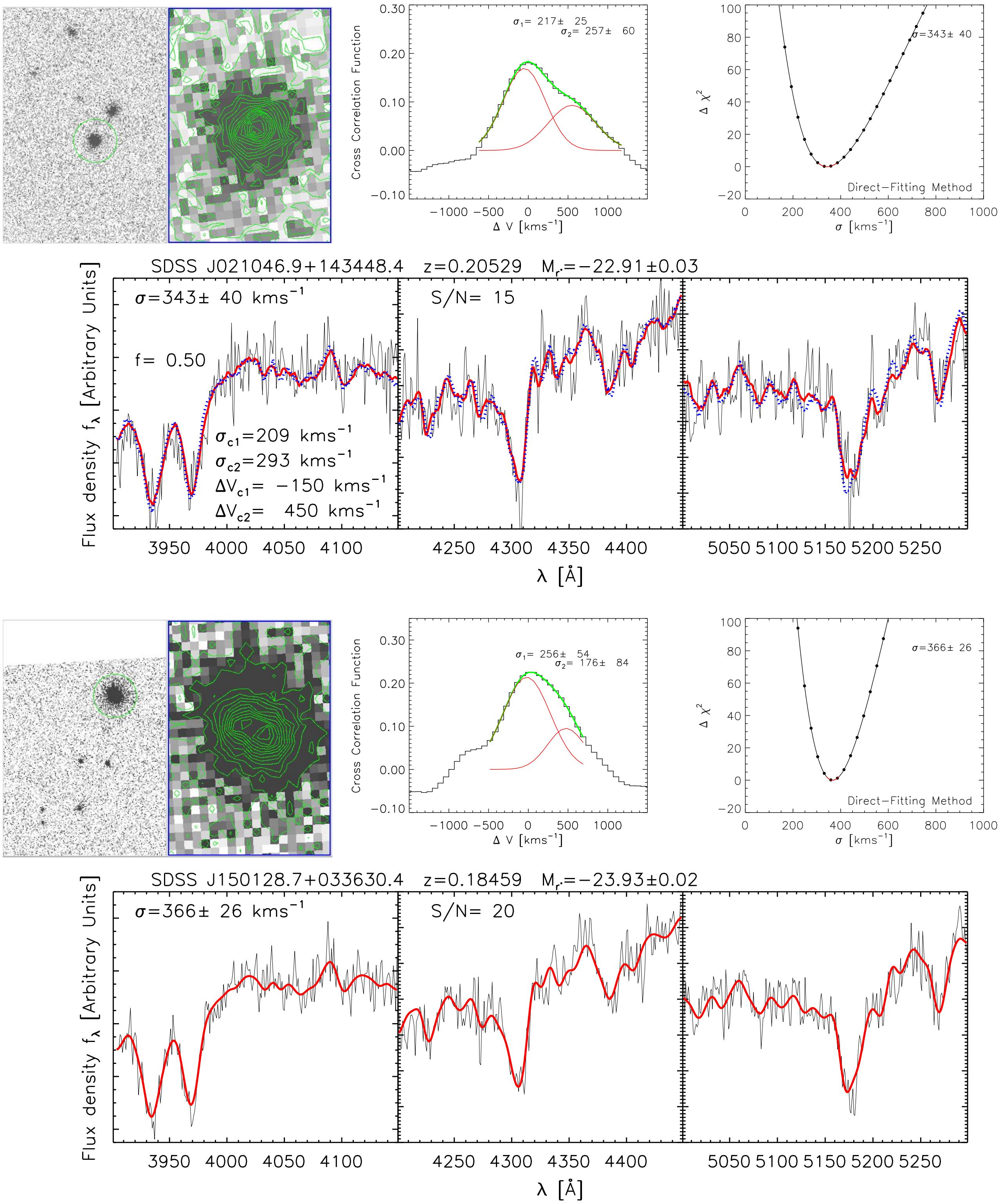


Fig. B2.— As in Figure B1 but for objects classified as superpositions.



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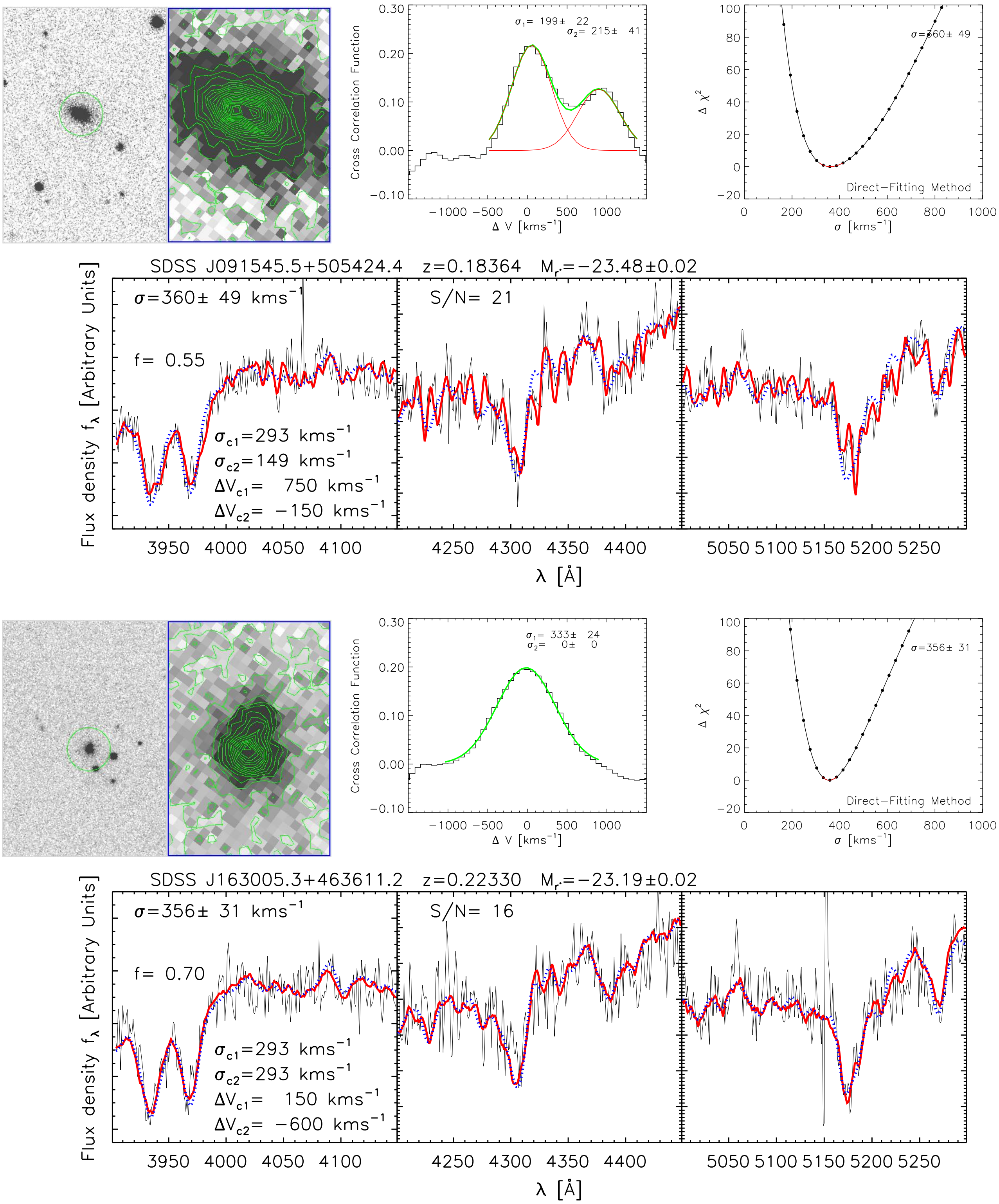

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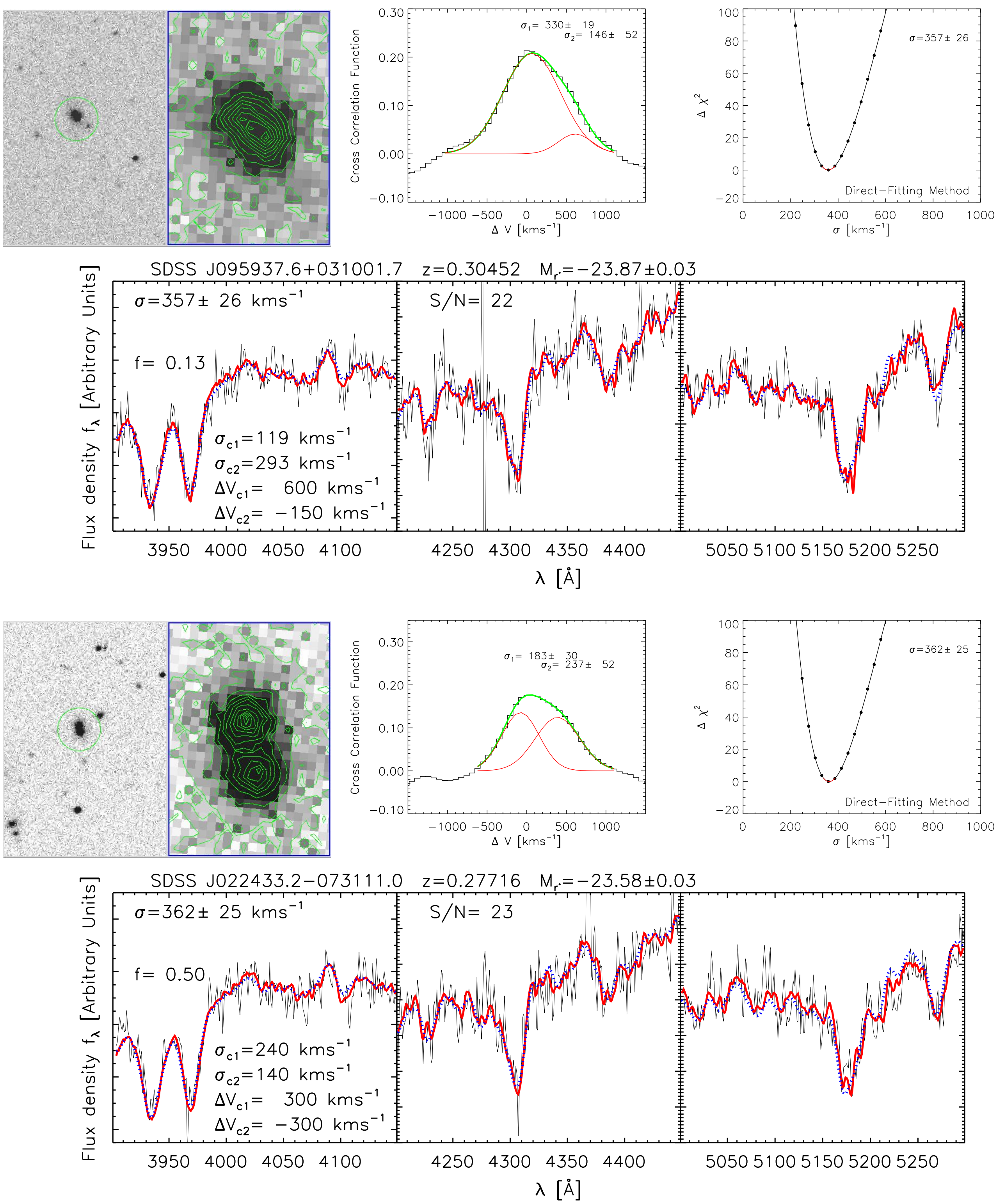

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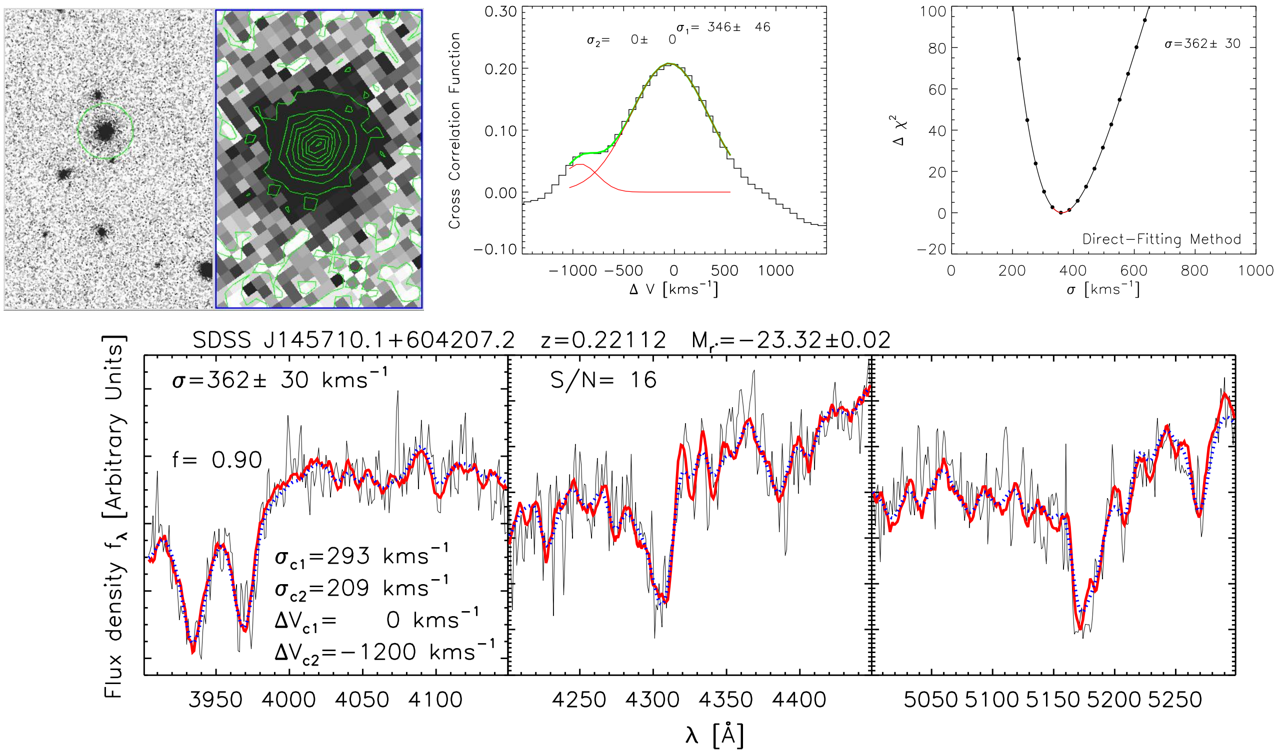

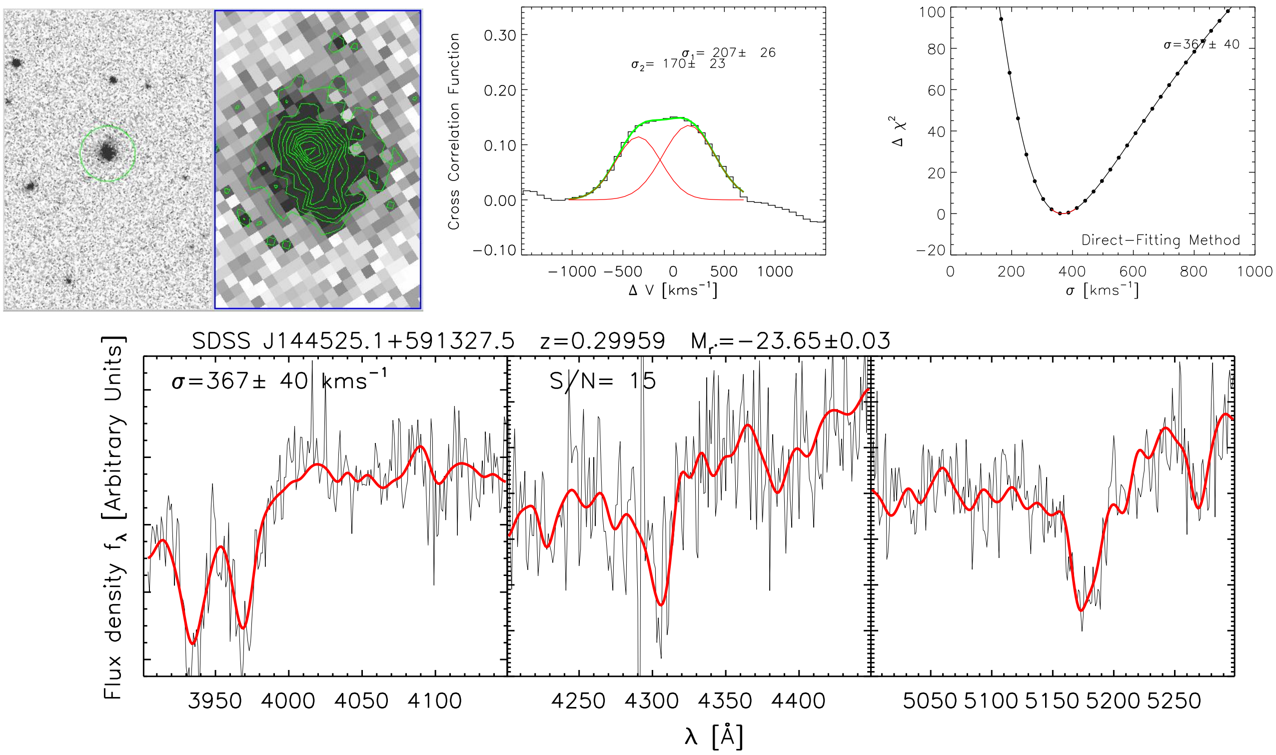

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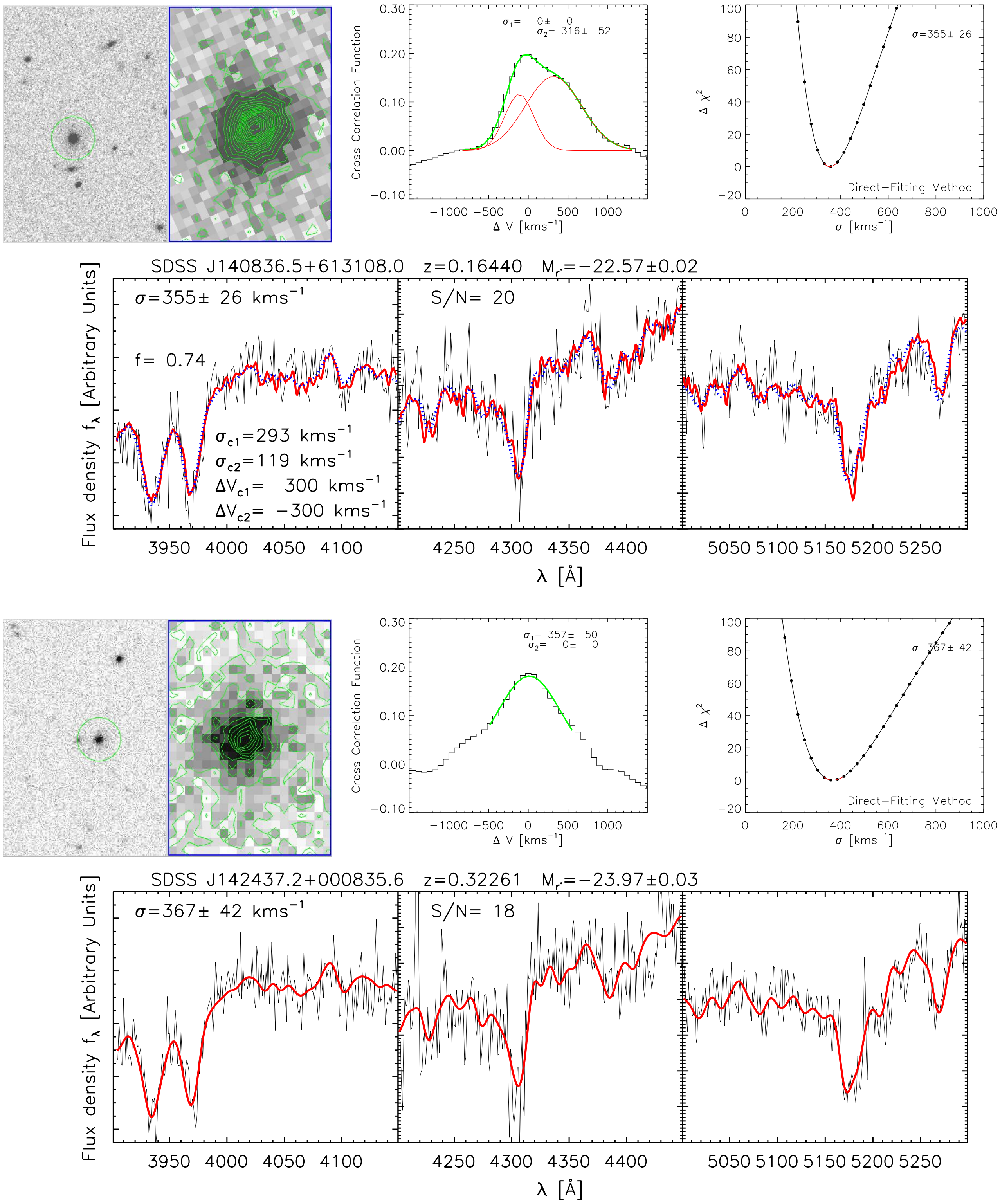

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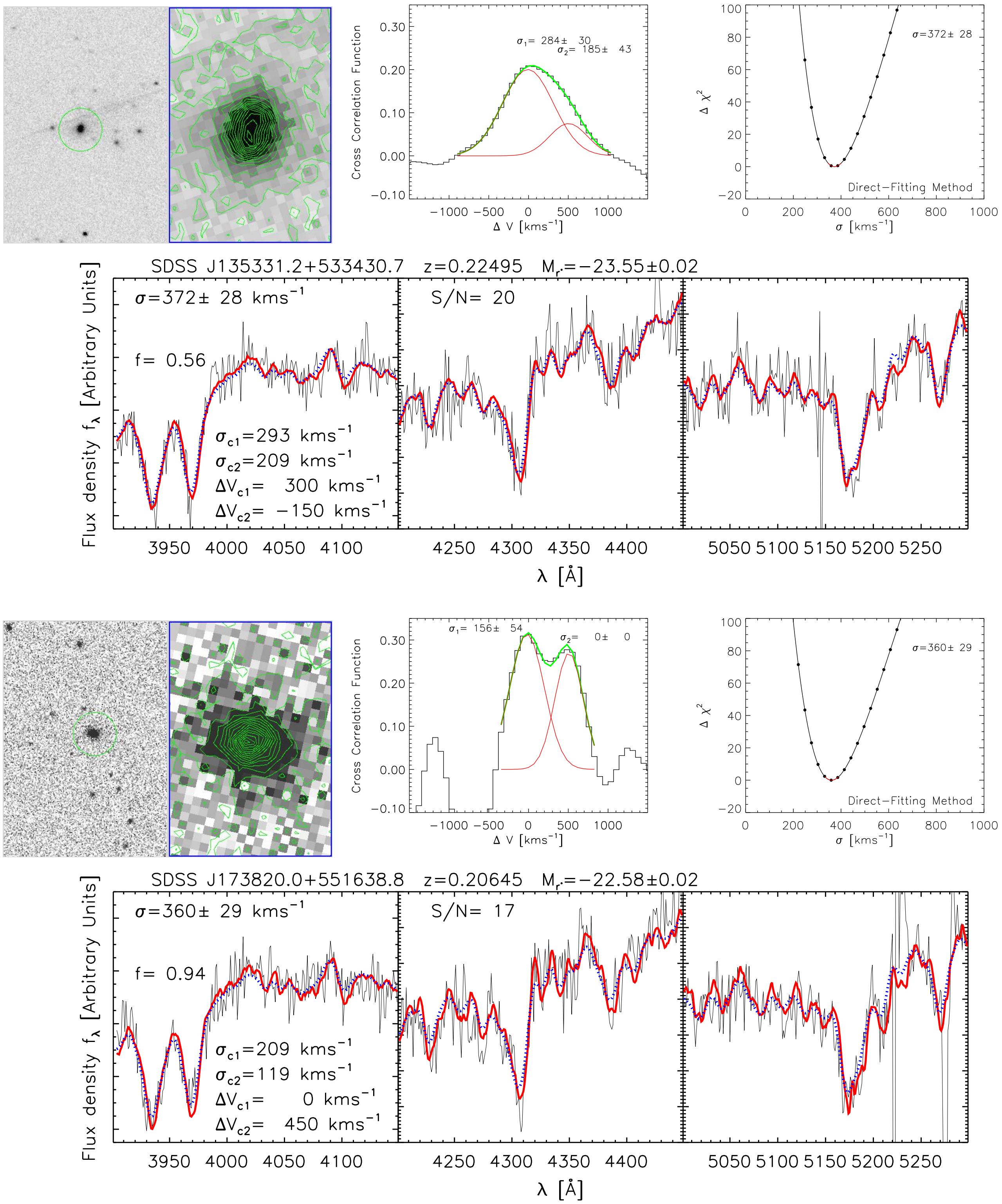


FIG. B2.— Continued.

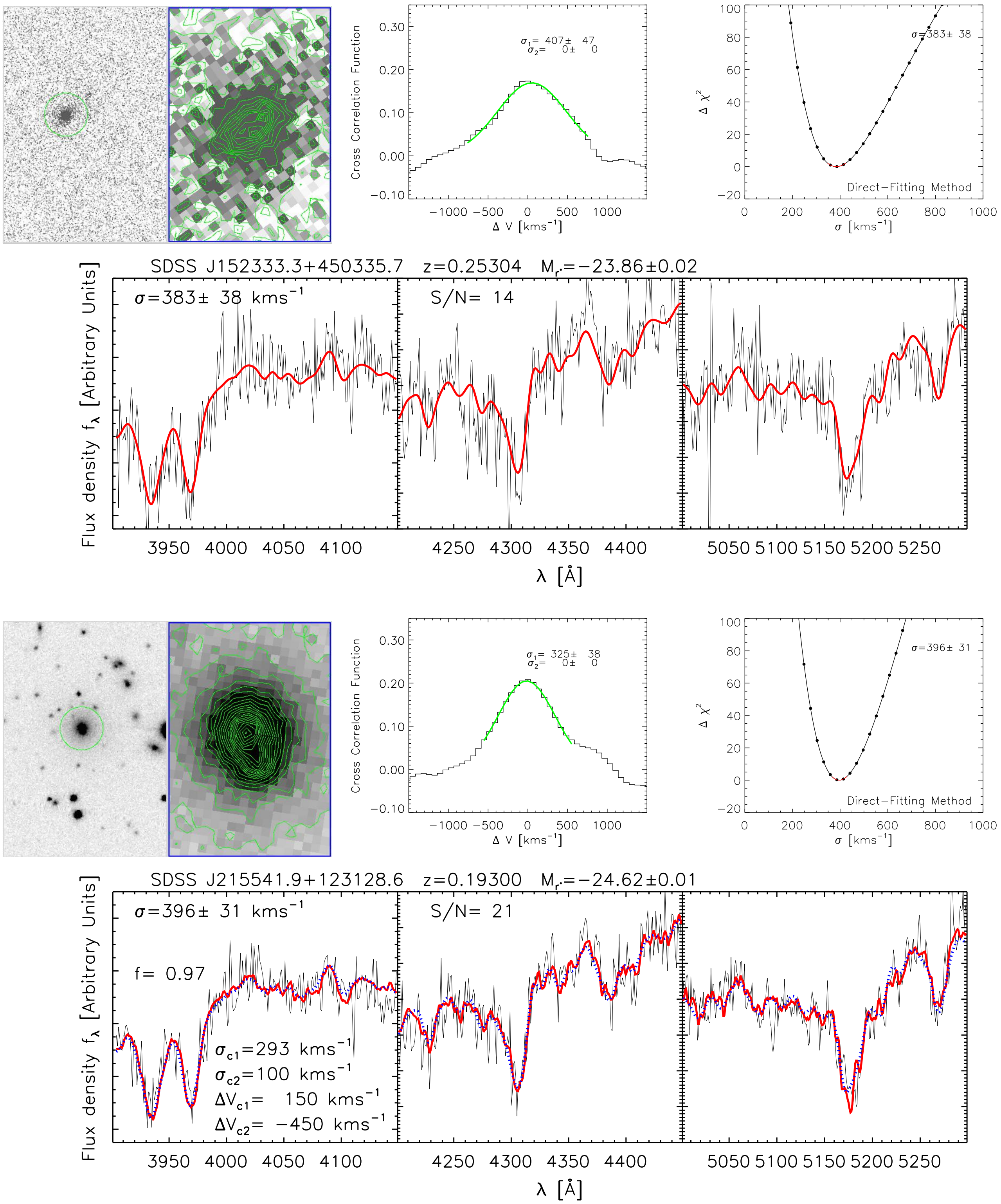


Fig. B2.— Continued.

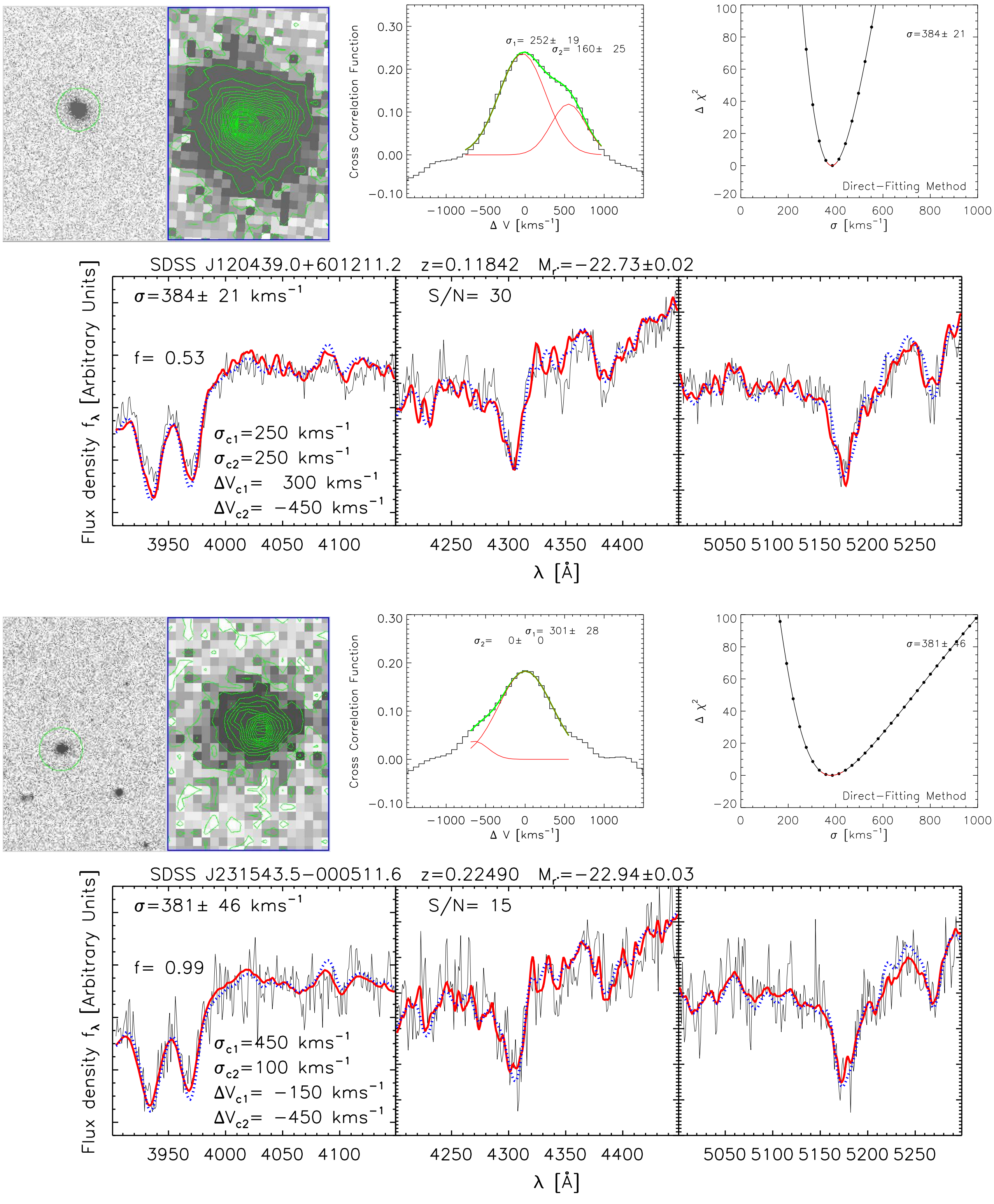


FIG. B2.— Continued.

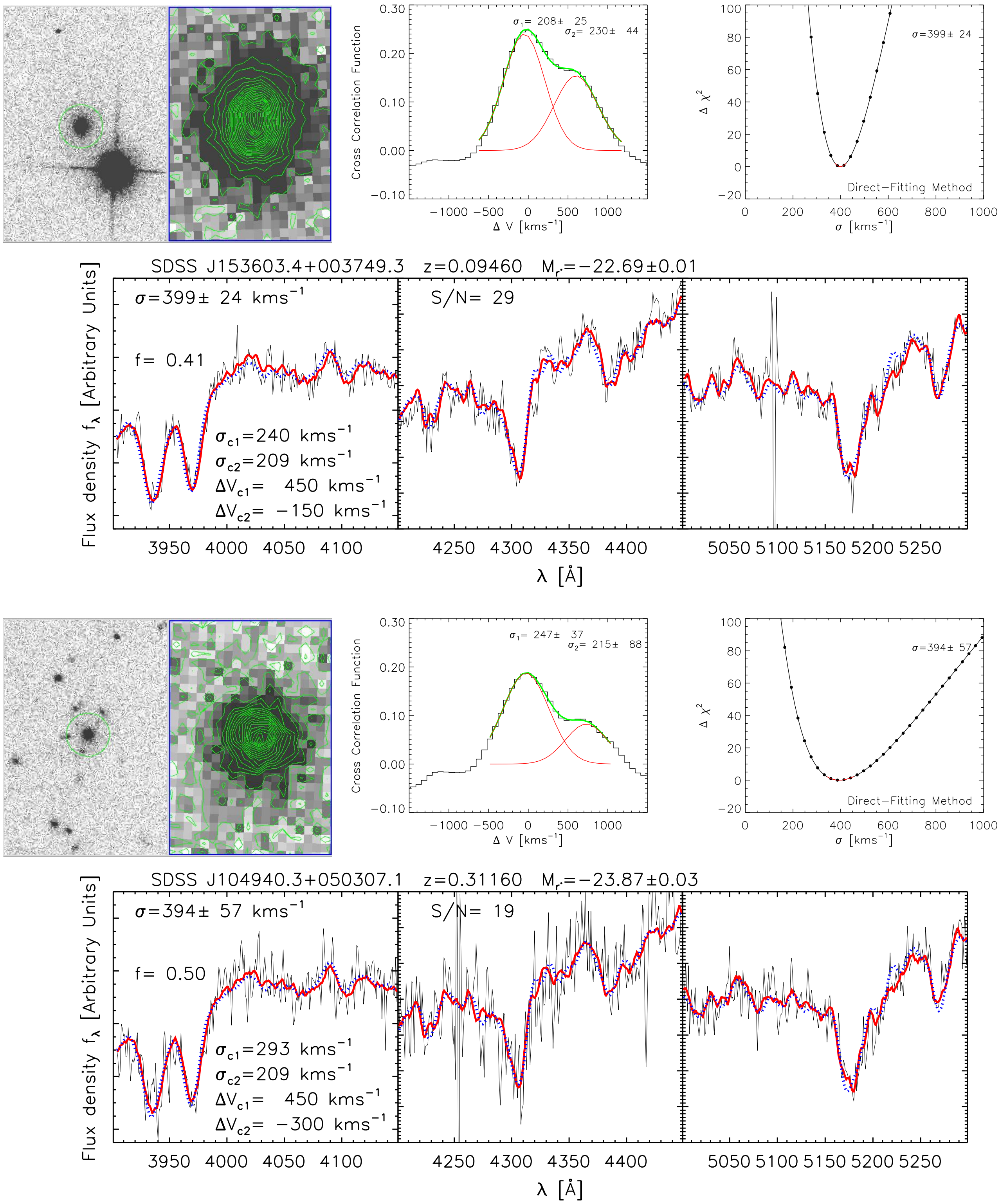
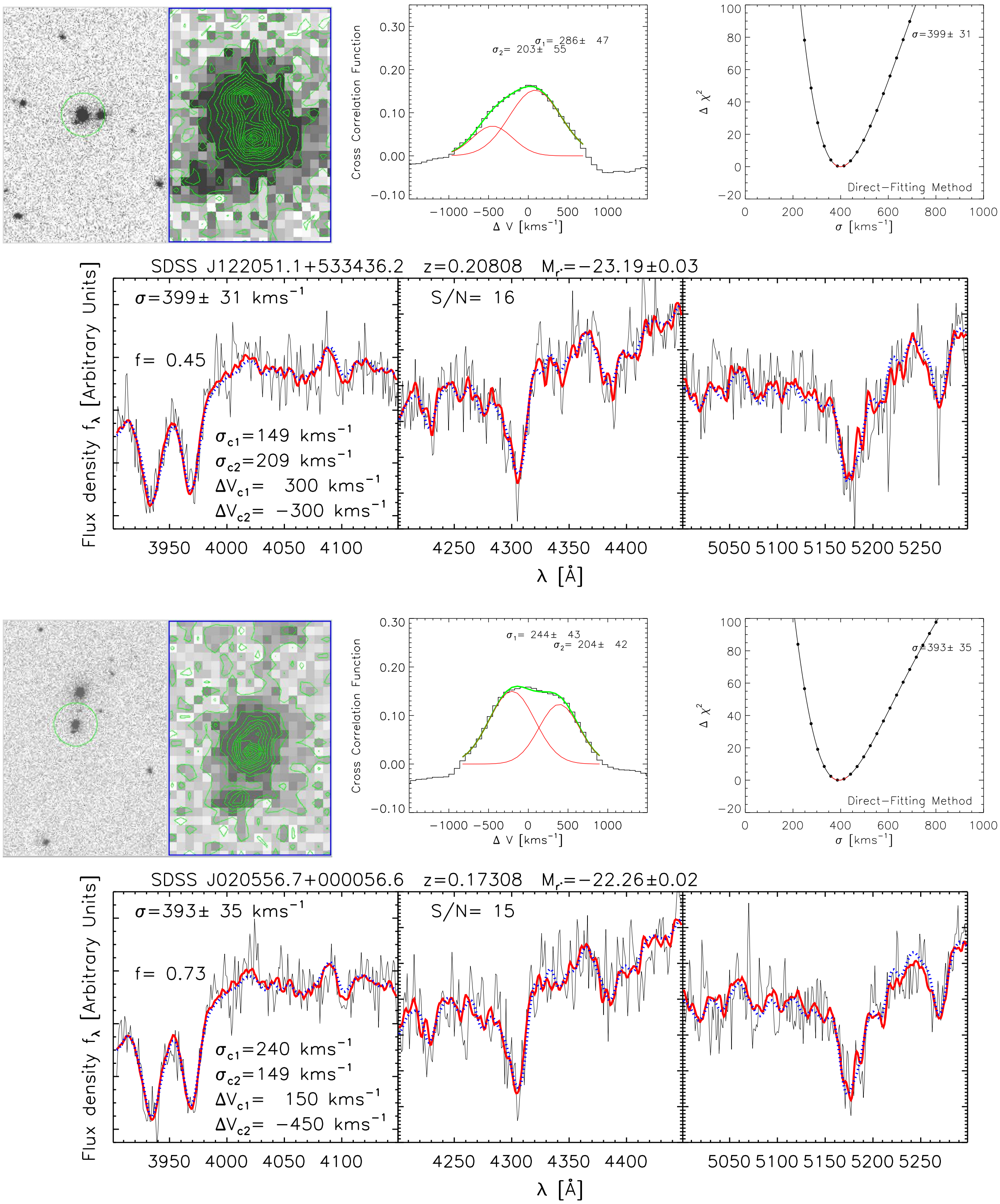


FIG. B2.— Continued.



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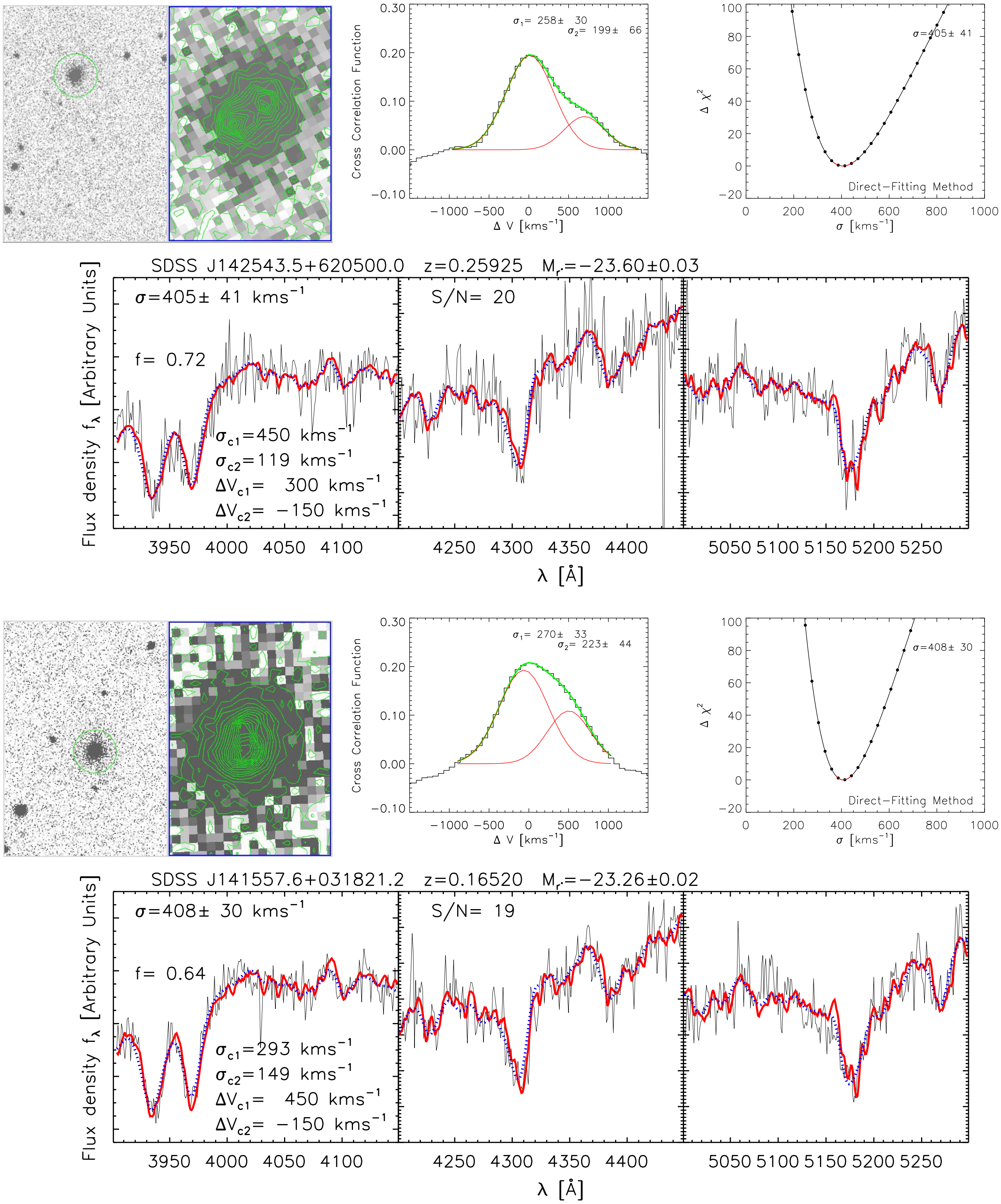
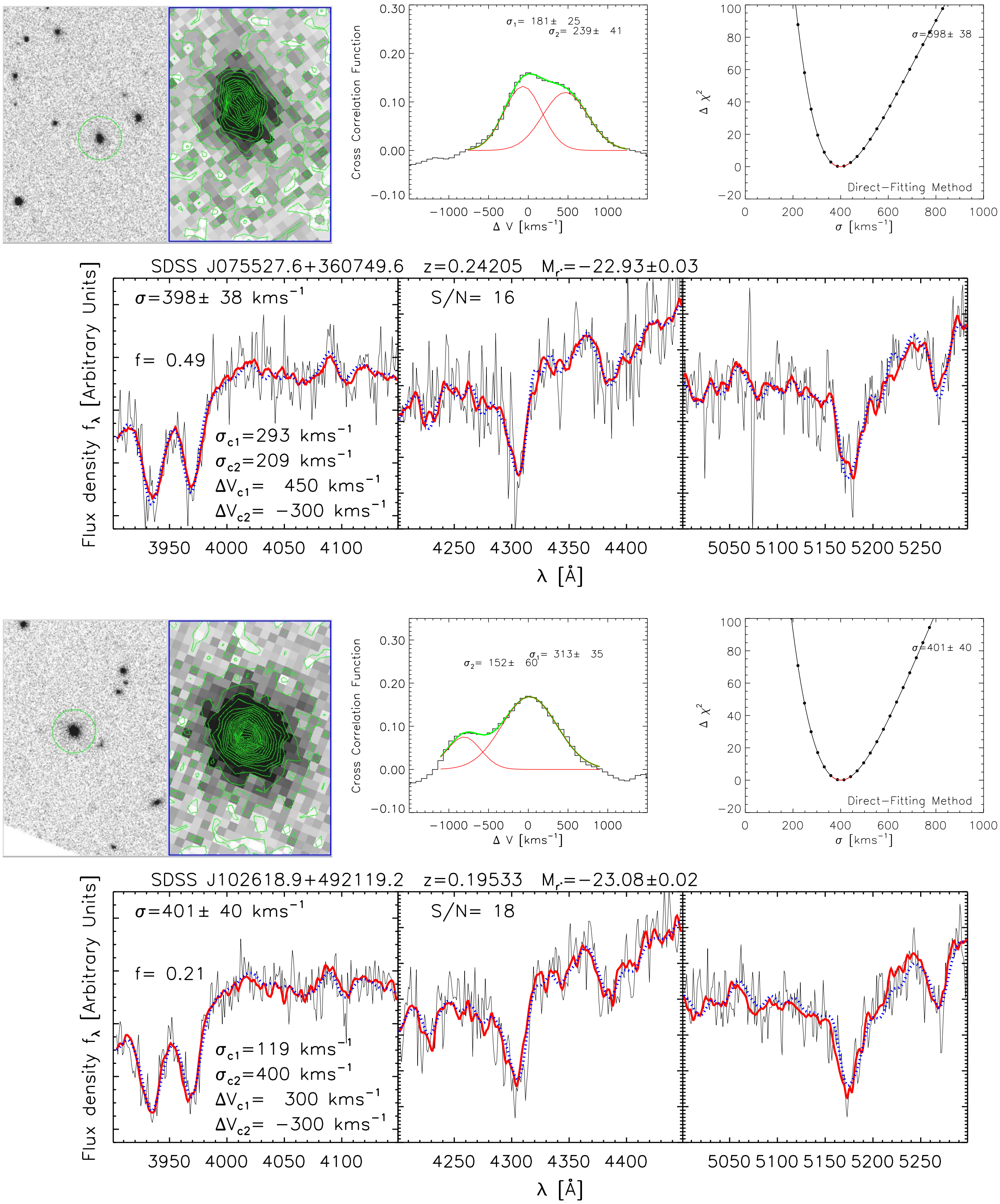


FIG. B2.— Continued.



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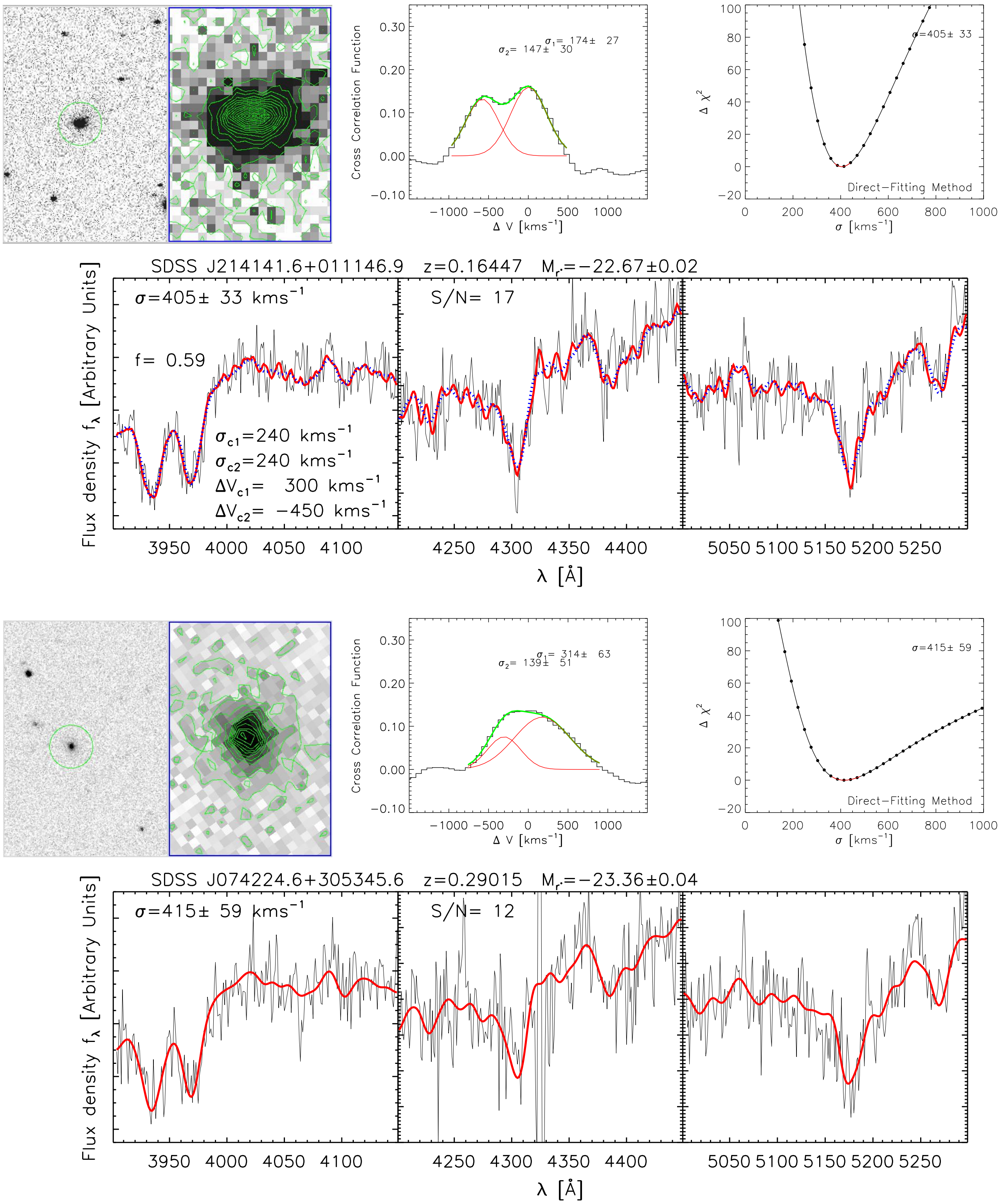
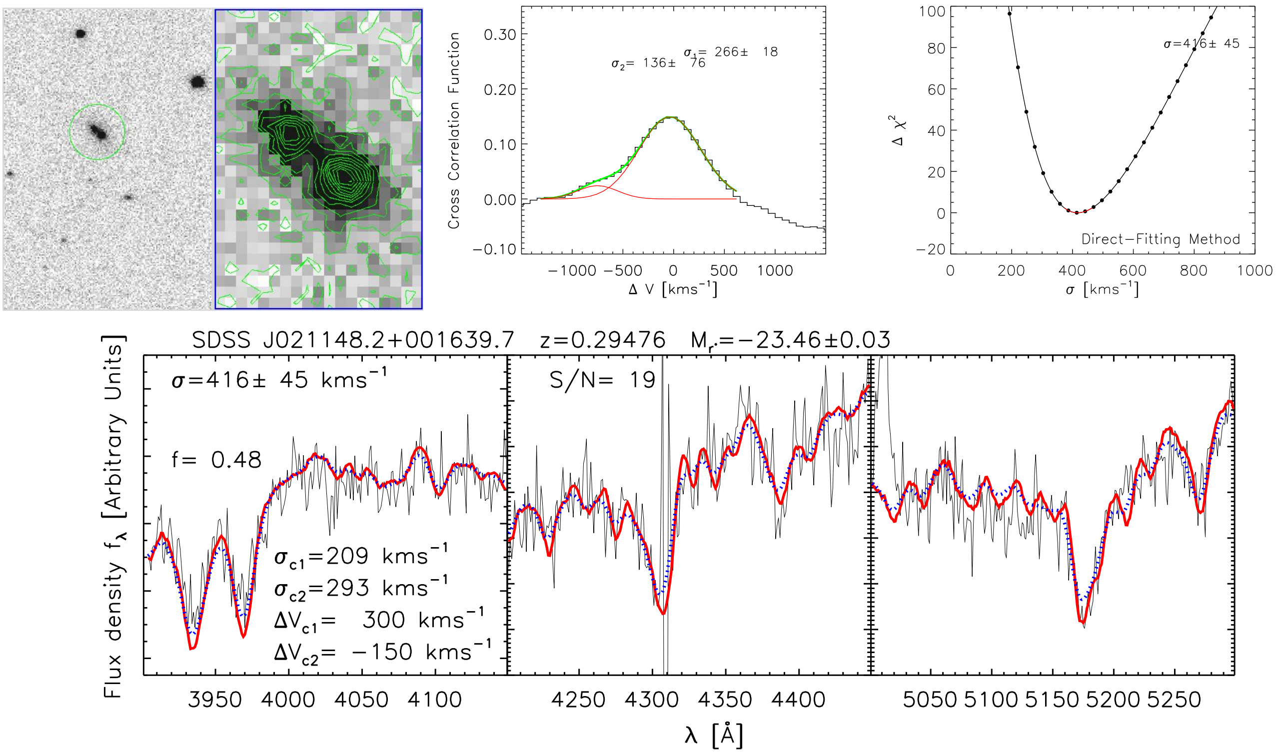


FIG. B2.— Continued.



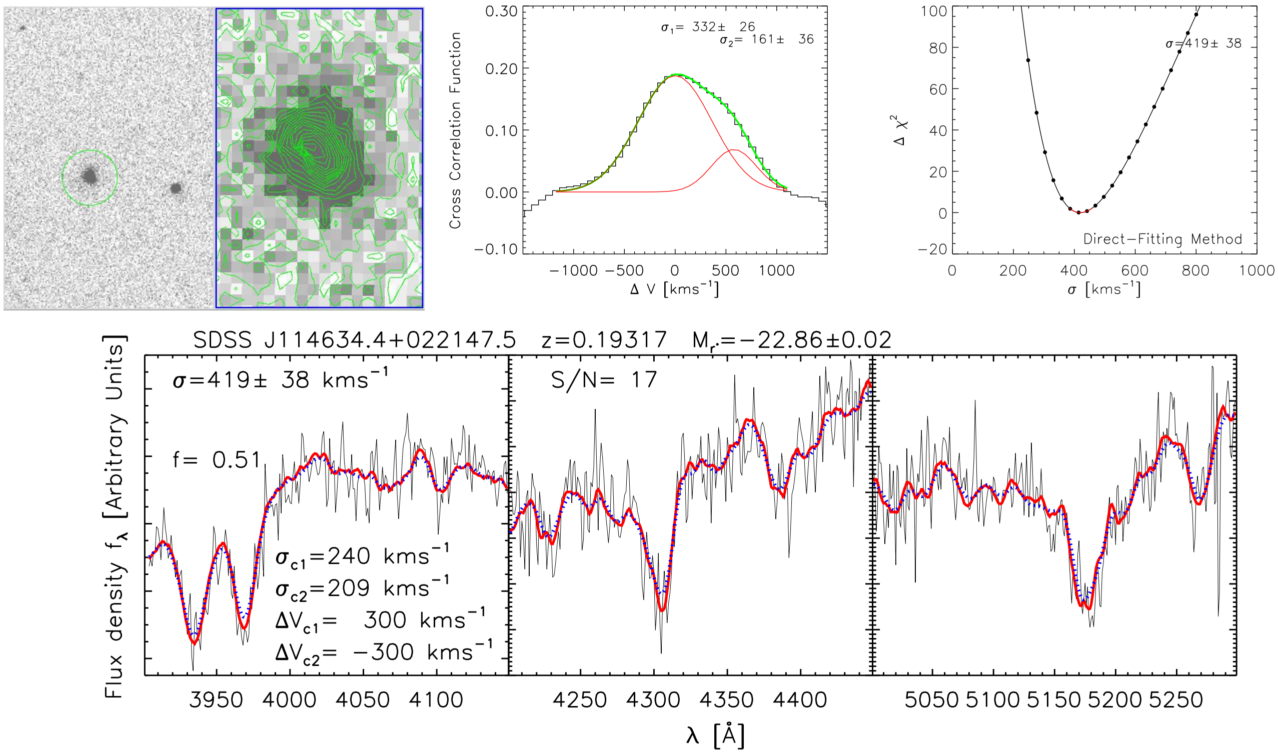
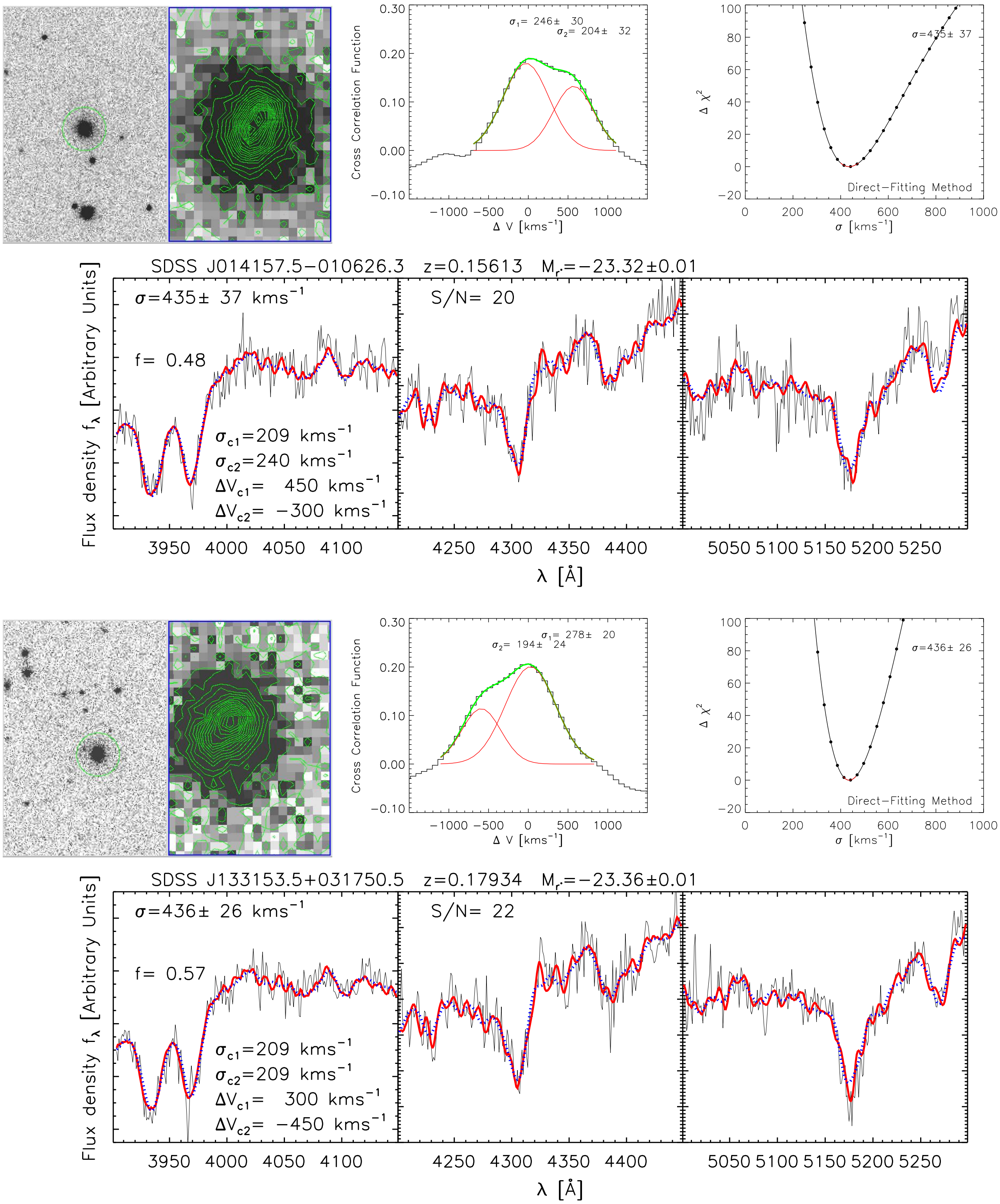


FIG. B2.— Continued.



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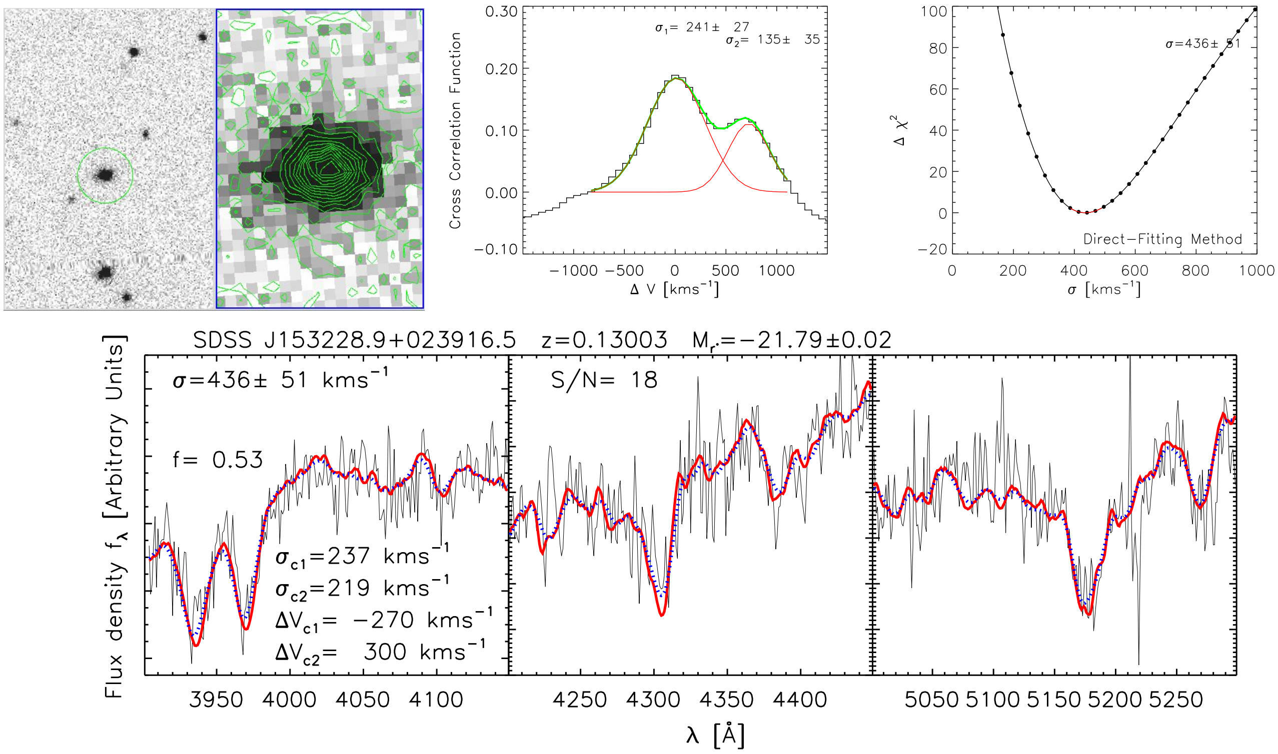

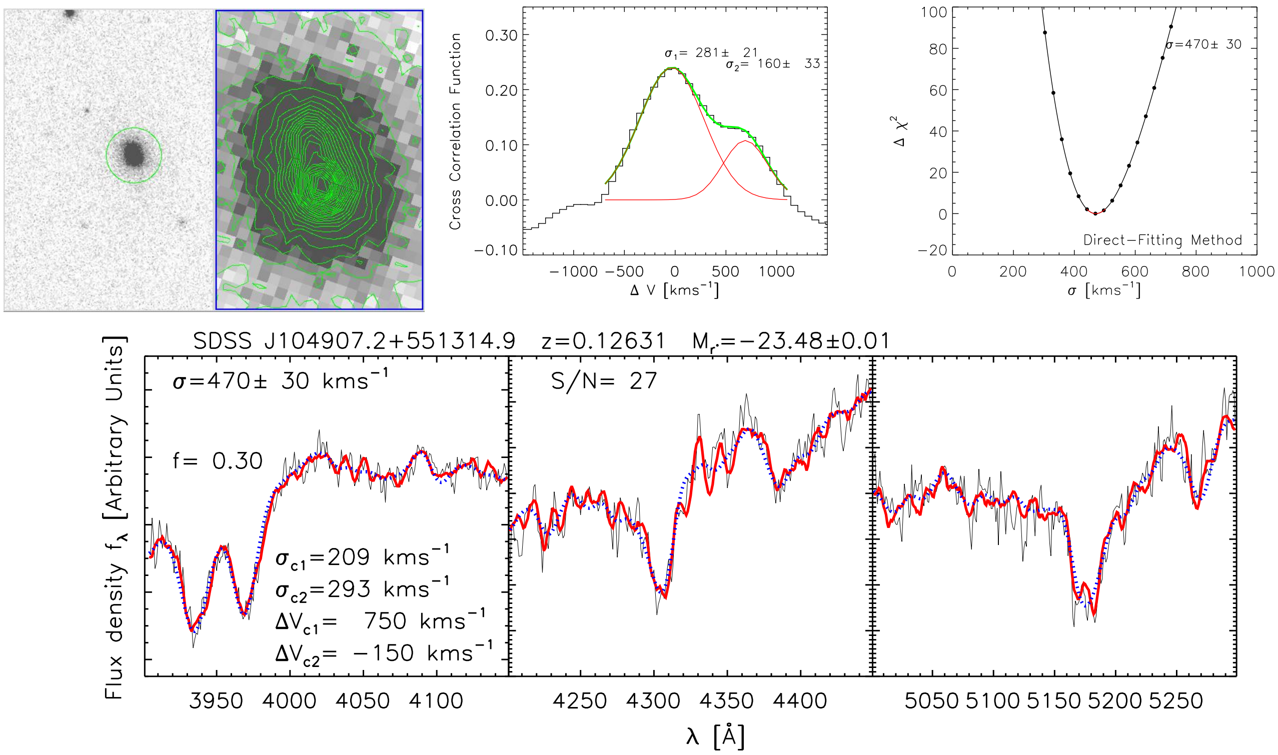

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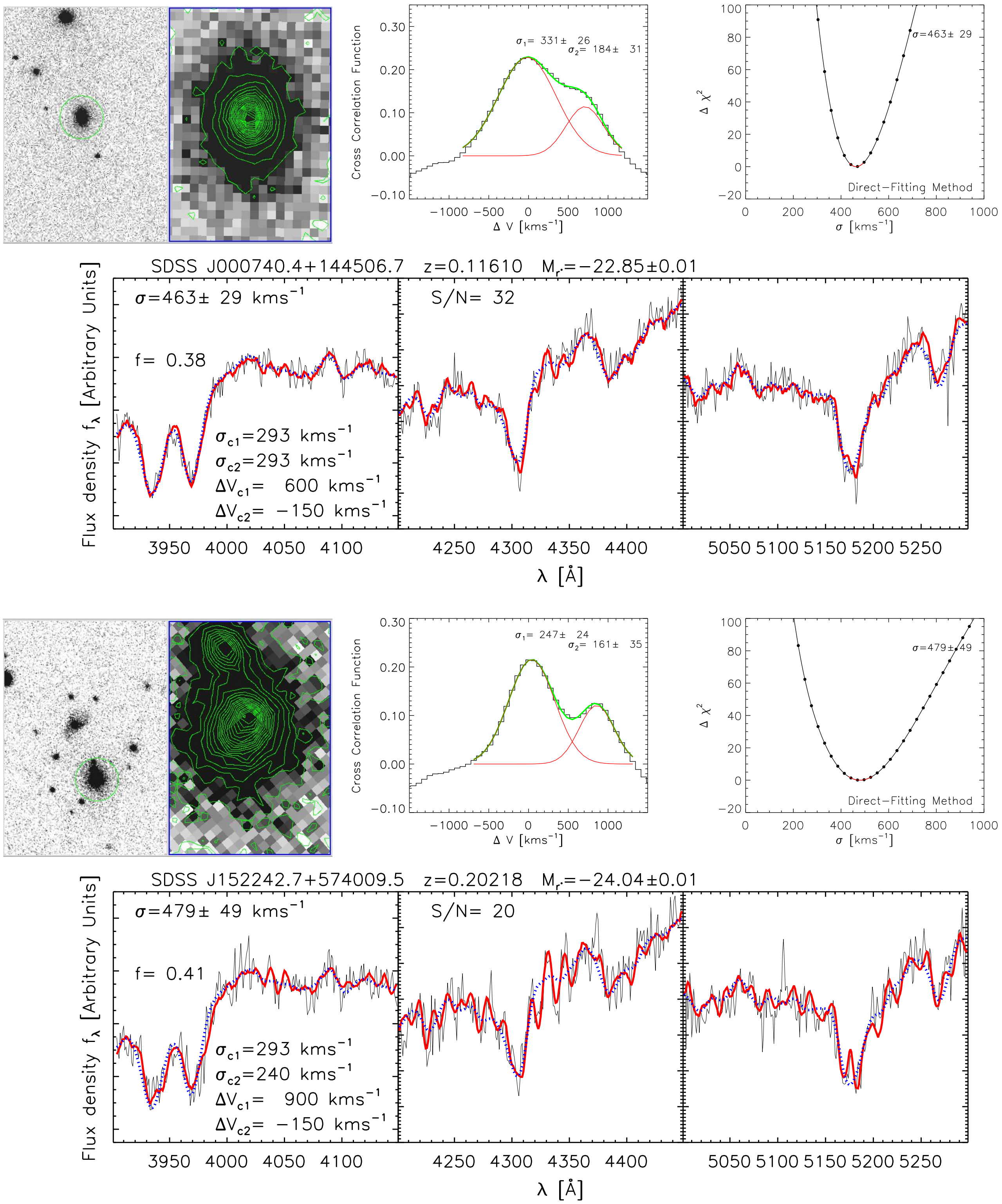

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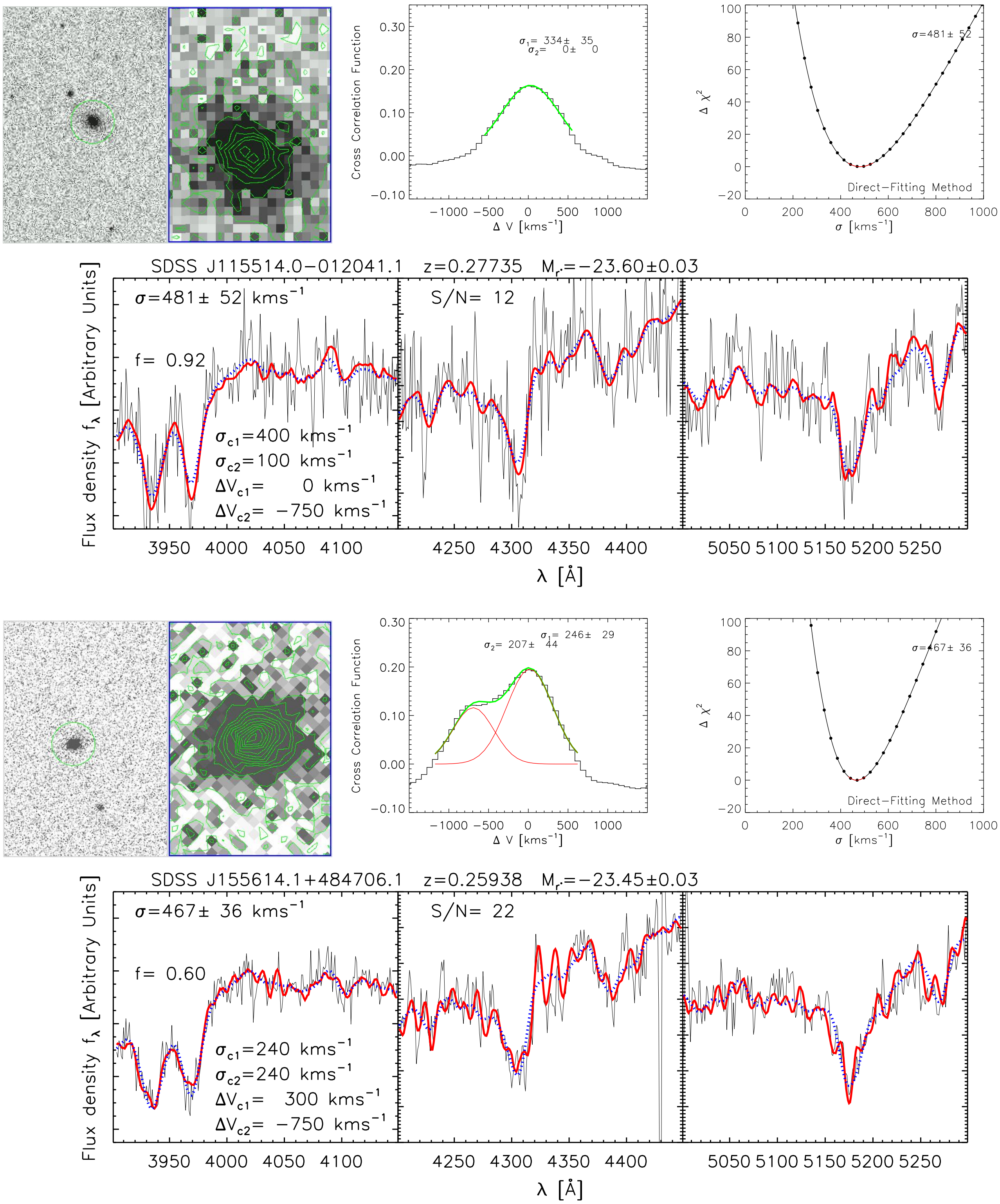

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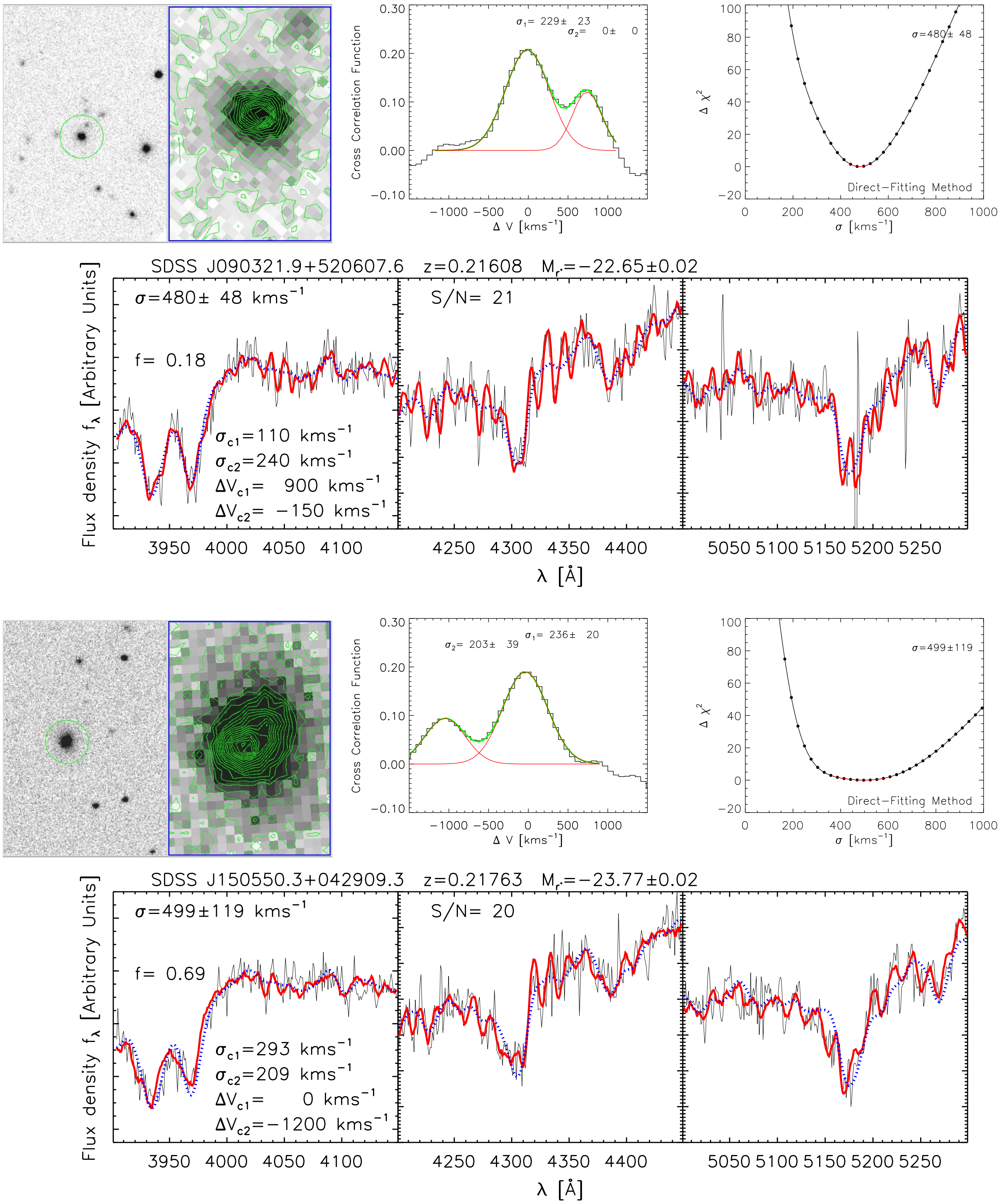

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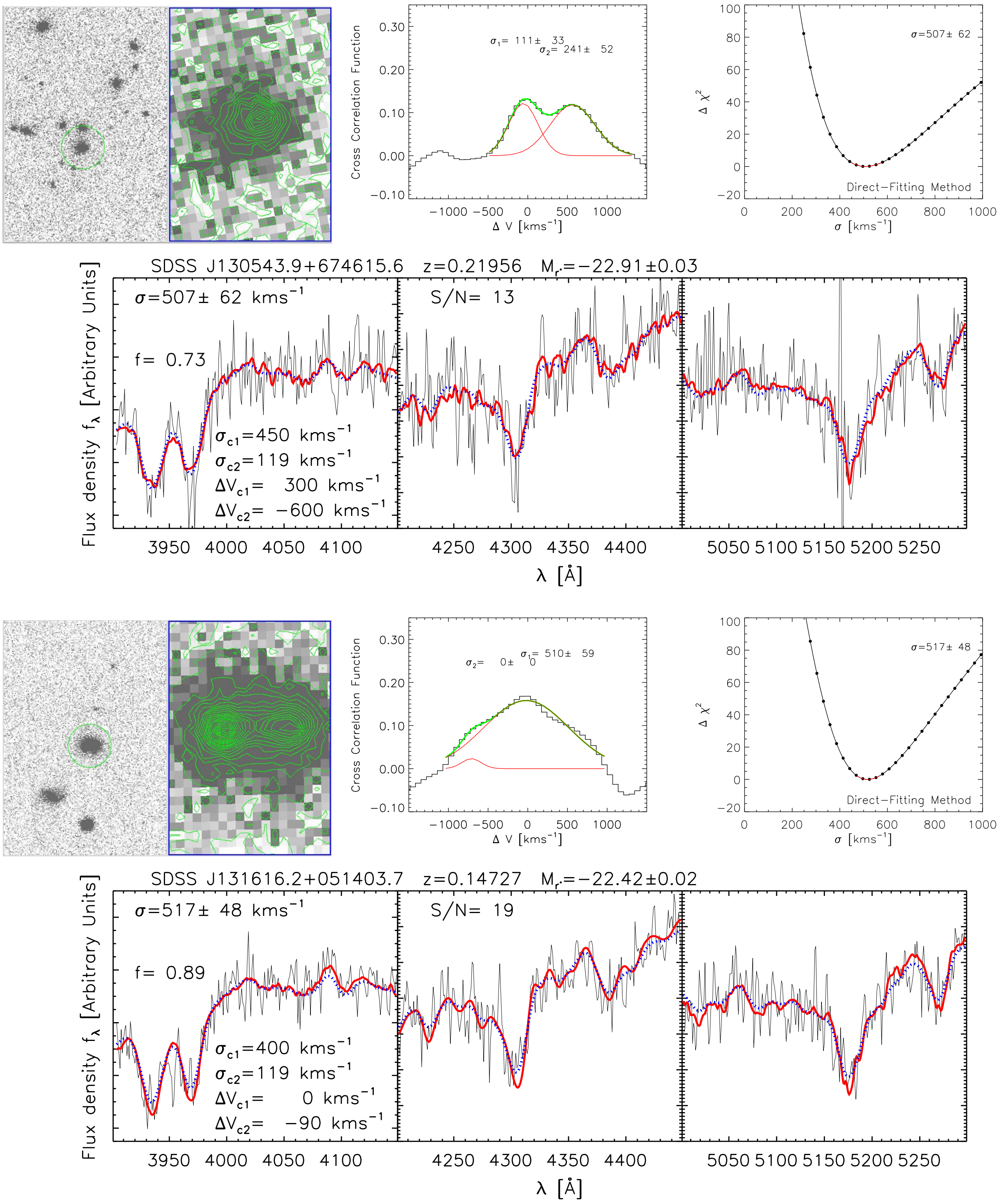

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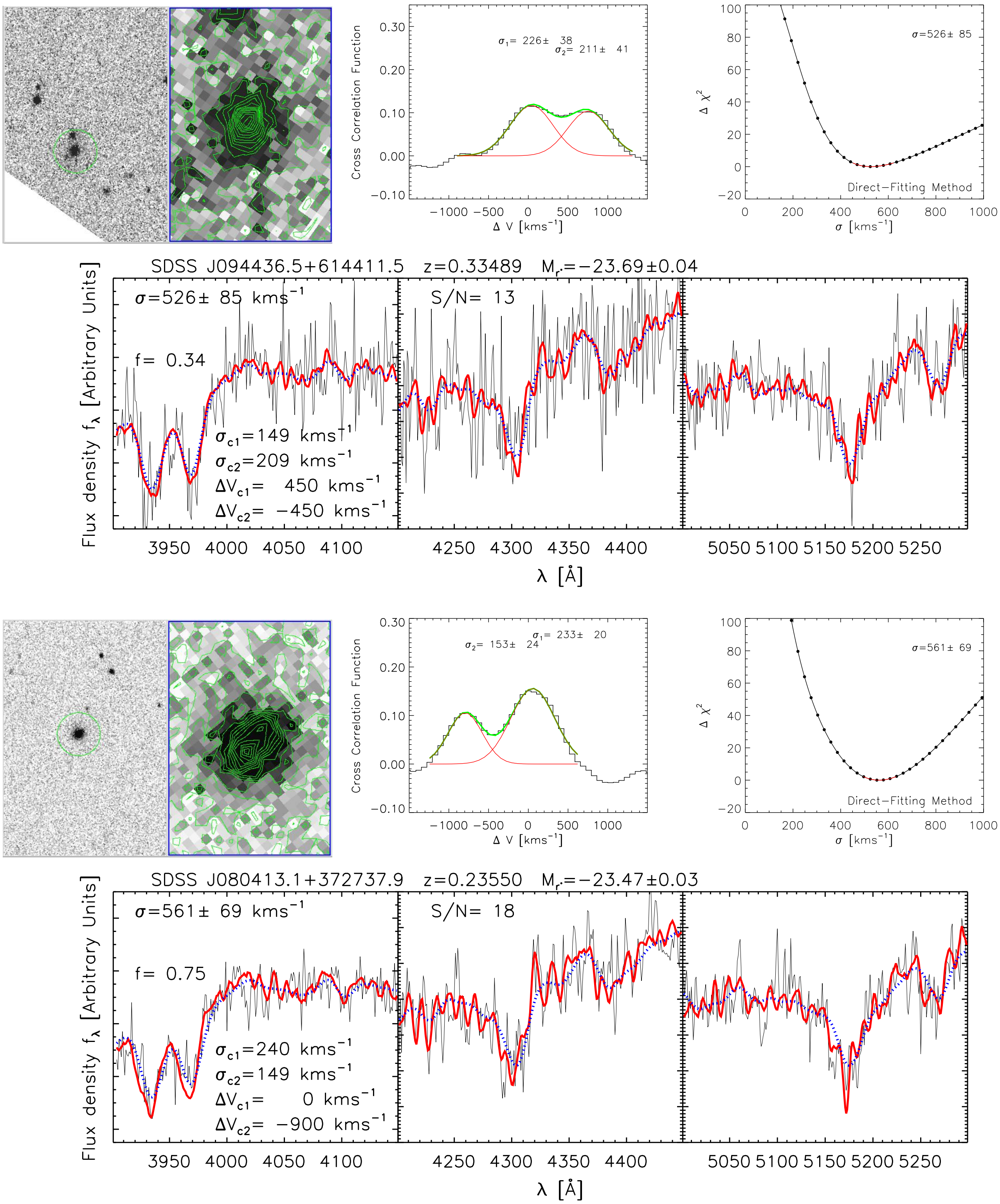

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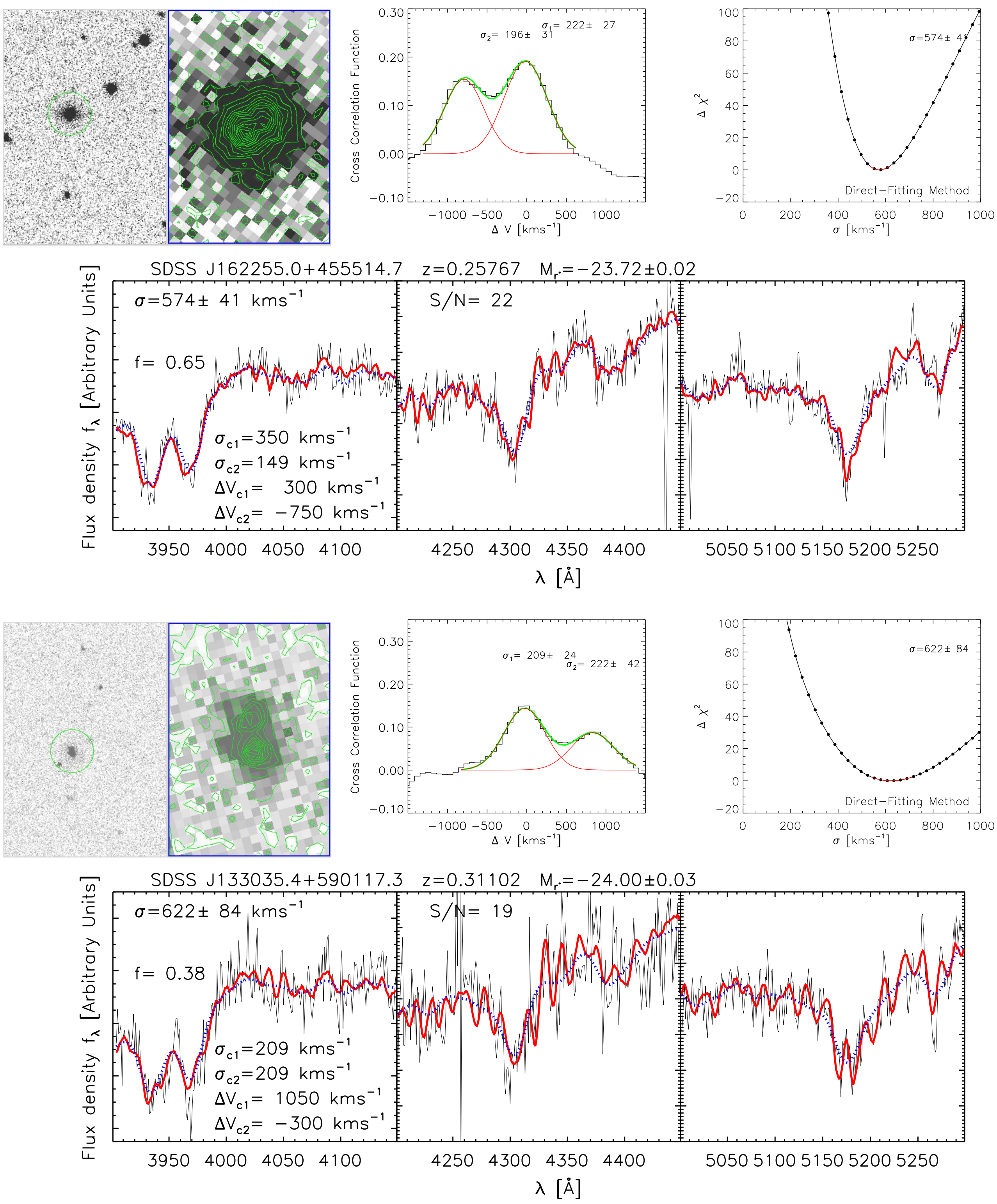

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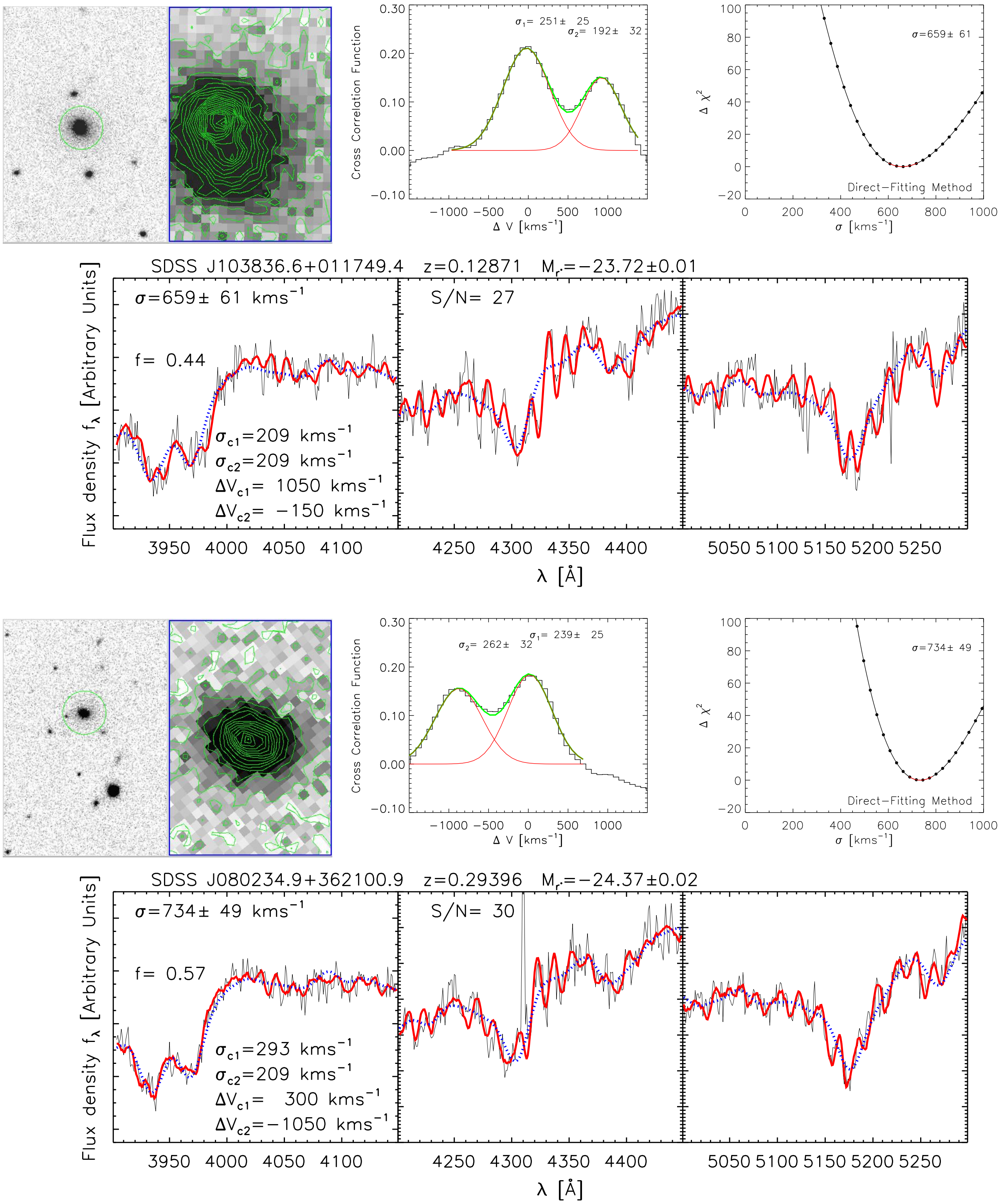

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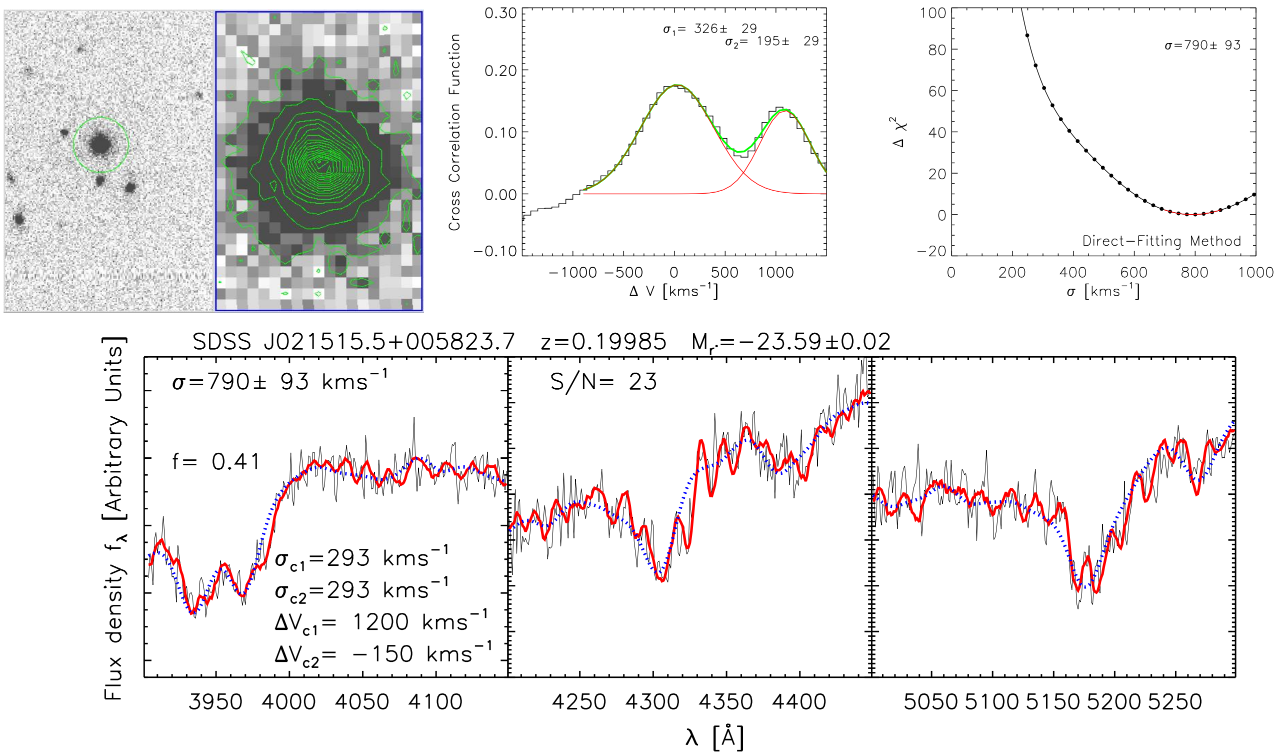

FIG. B2.— Continued.