Long term variability of the coronal and post – coronal regions of the Oe star HD 149757 (ζ Oph)

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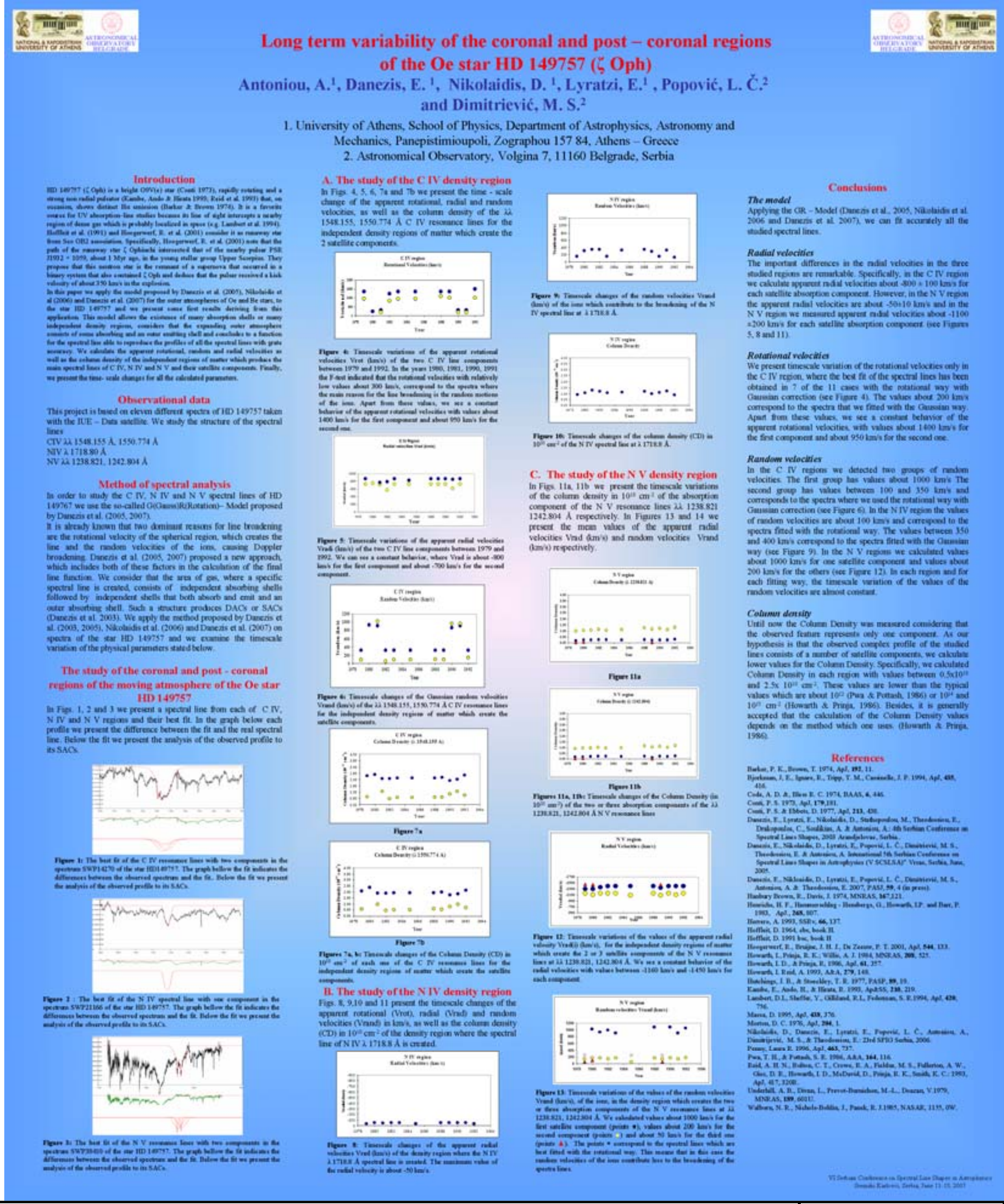

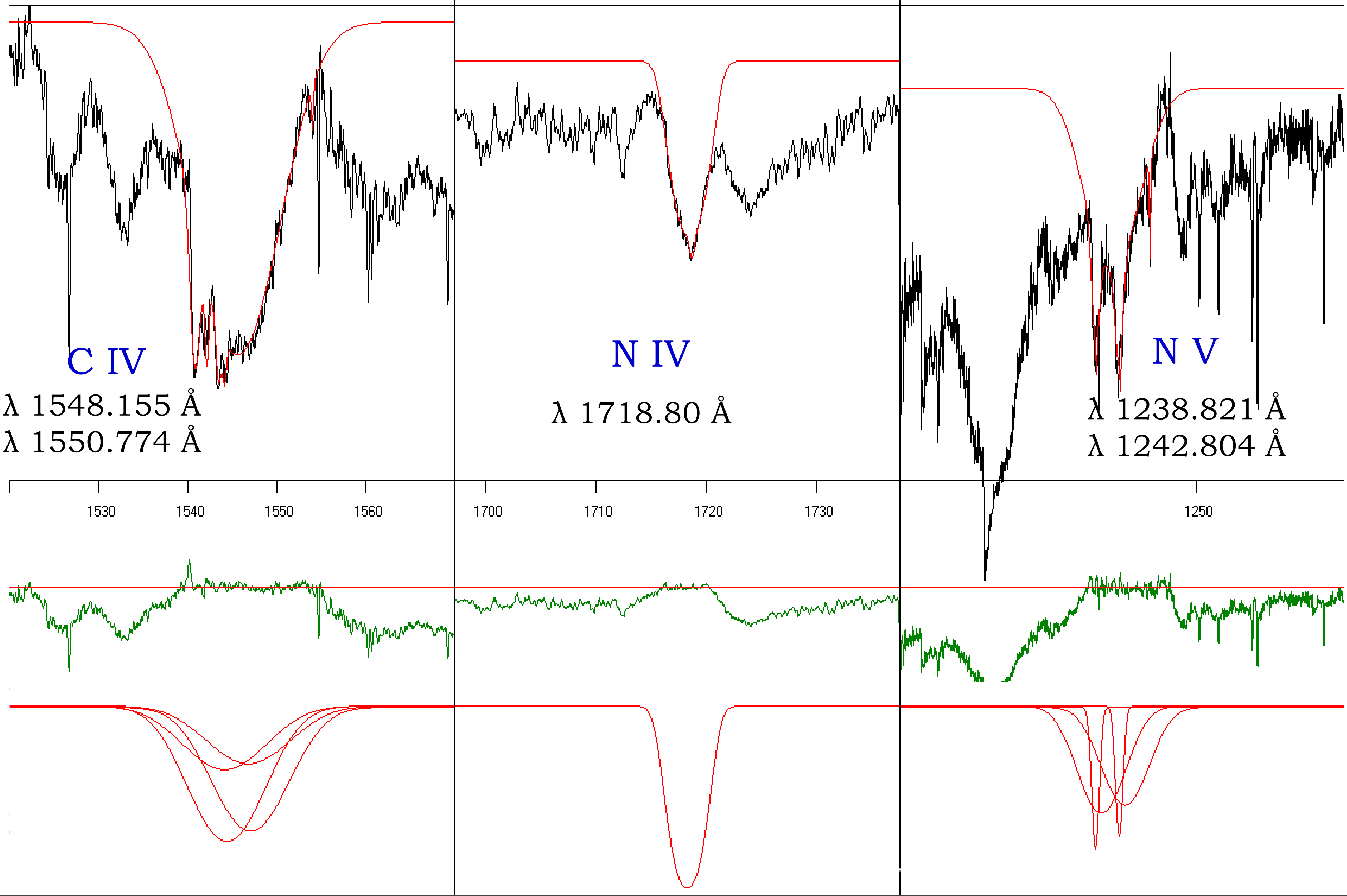

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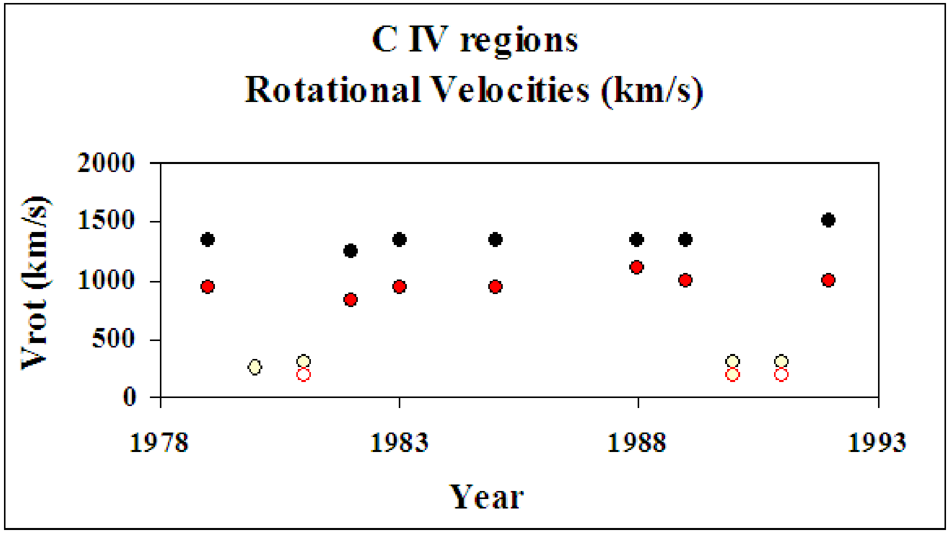
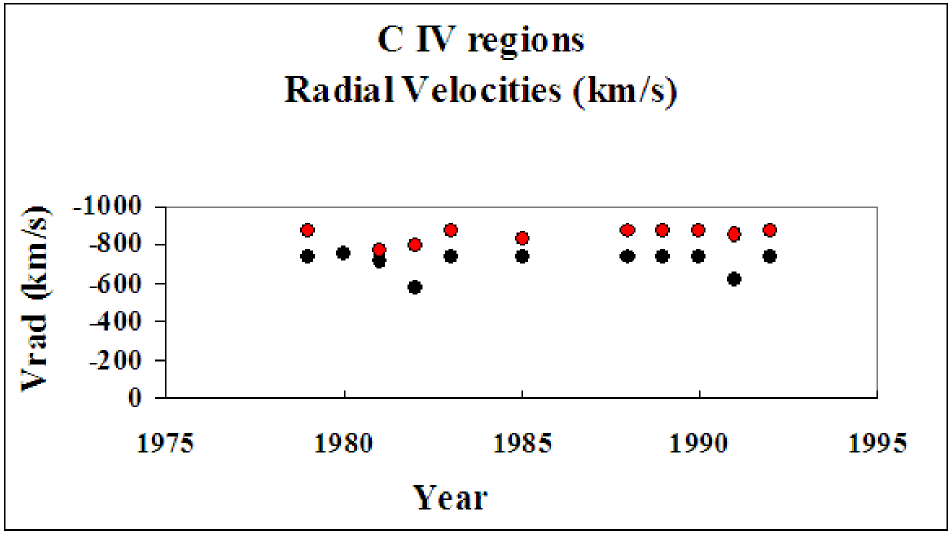
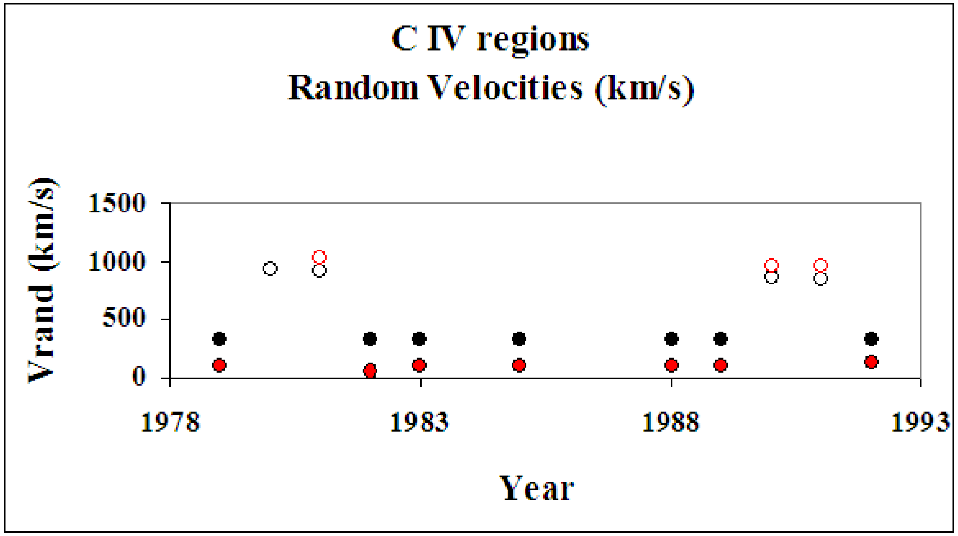
C IV regions





Vrot, Vrad, Vrand: Constant with time



Rotational Velocities:

a component: 1400 km/s

b component: 950 km/s

Radial Velocities:

a component: -800 km/s

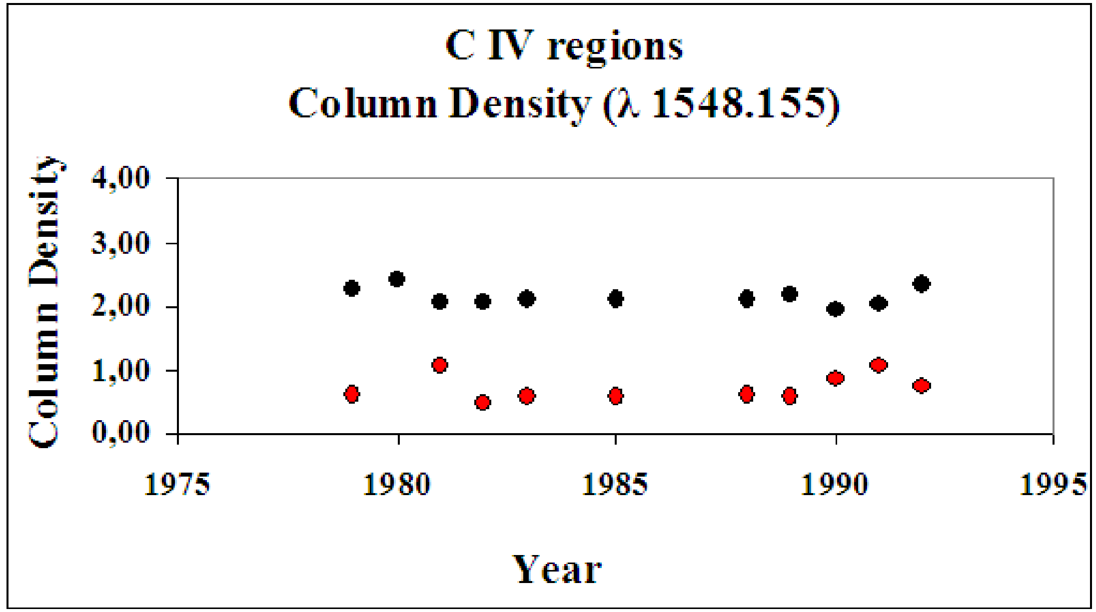
b component: -700 km/s

Random Velocities:

a component: 320 km/s

b component: 90 km/s

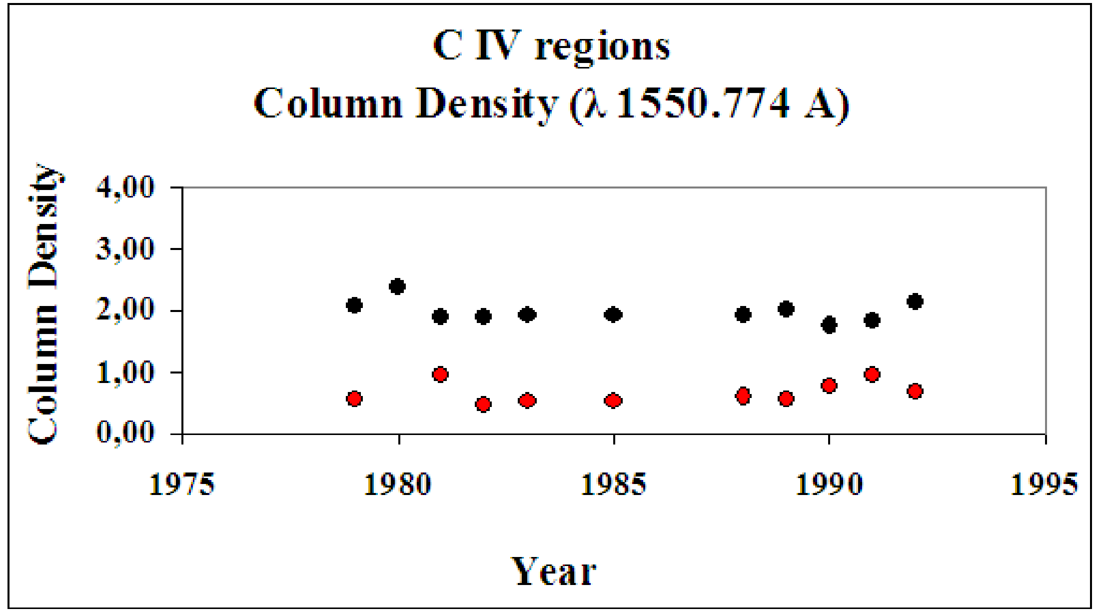
Column Density (CD) in 10^{10} cm^{-2} of each one of the C IV resonance lines for the independent density regions of matter which create the satellite components.



λ 1548.155 Å

a component: 2.15×10^{10} cm^{-2}

b component: 0.72×10^{10} cm^{-2}



λ 1550.774 Å

a component: 1.98×10^{10} cm^{-2}

b component: 0.66×10^{10} cm^{-2}

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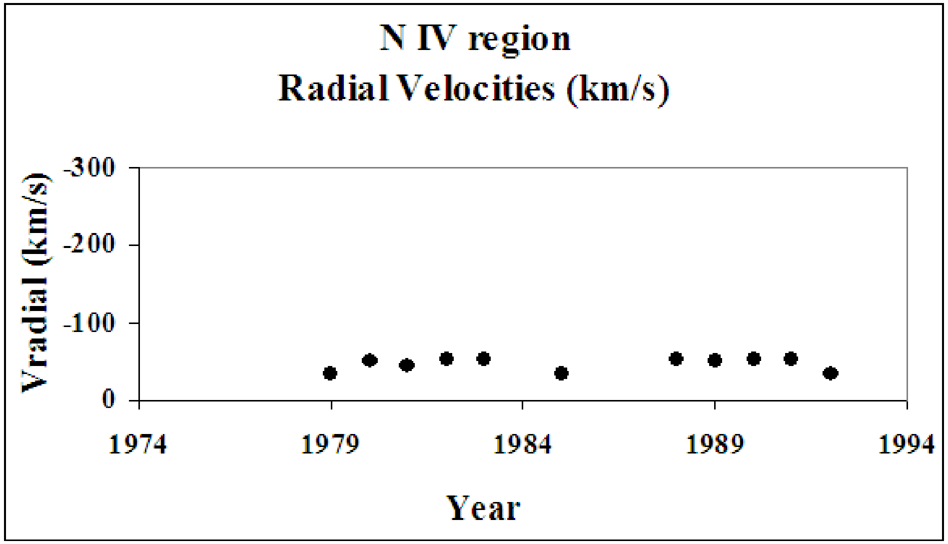
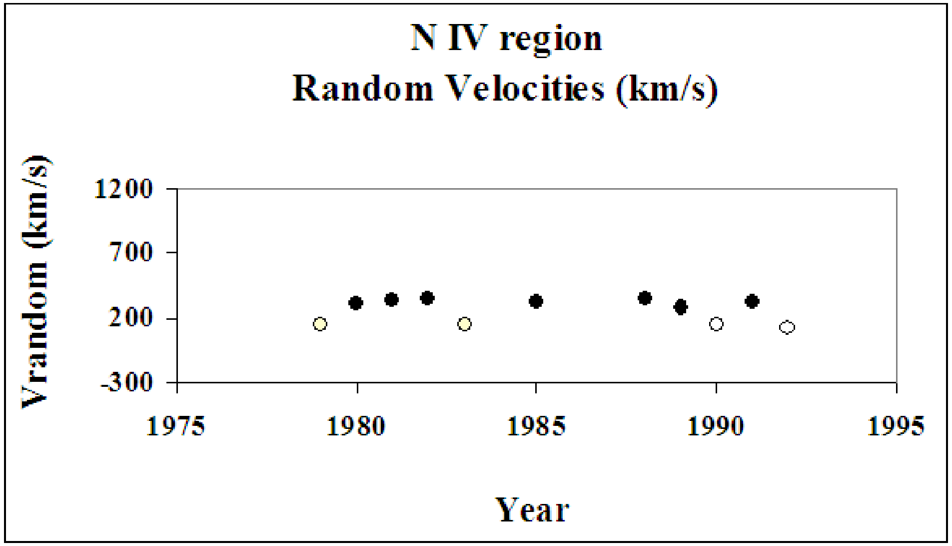
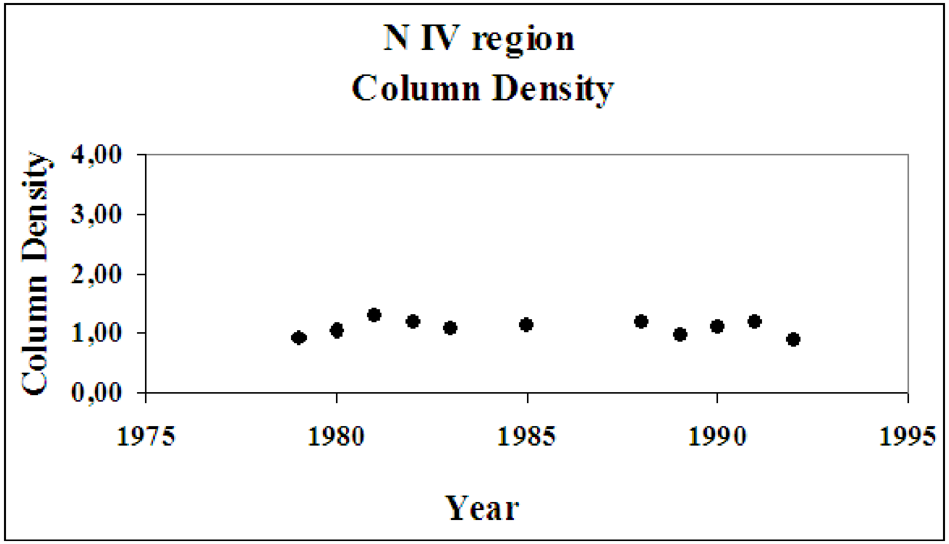
N IV region







GR method

V_{rad}, V_{rand}, CD: Constant with time

Radial Velocities: -47 km/s

Random Velocities: 262 km/s

Column Density: 1.09×10^{10} cm^{-2}

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N V regions

GR method

V_{rad}, V_{rand}: Constant with time

Radial Velocities:

a component: -1138 km/s

b component: -1374 km/s

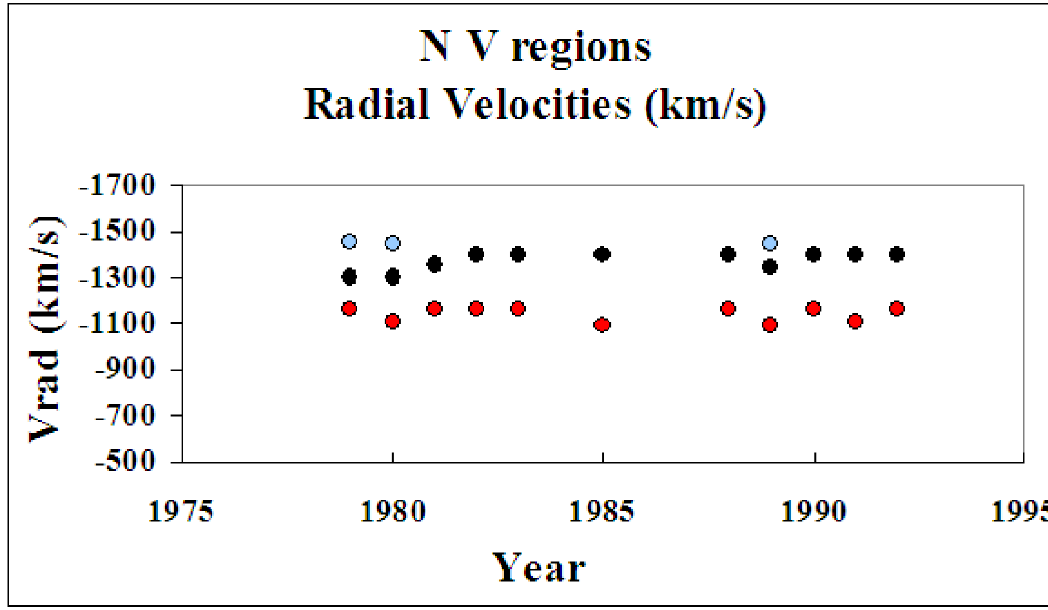
c component: -1450 km/s

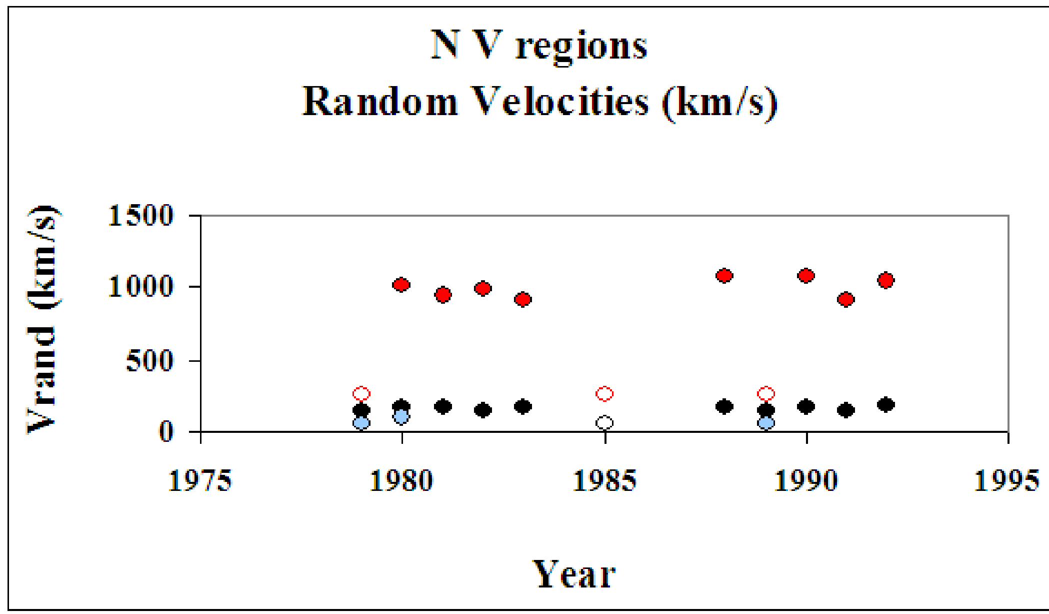
Random Velocities:

a component: 797 km/s

b component: 152 km/s

c component: 71 km/s





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Column Density (CD) in 10^{10} cm^{-2} of each one of the N V resonance lines for the independent density regions of matter which create the satellite components.

λ 1238.821 Å

a component: 1.13×10^{10} cm^{-2}

b component: 0.25×10^{10} cm^{-2}

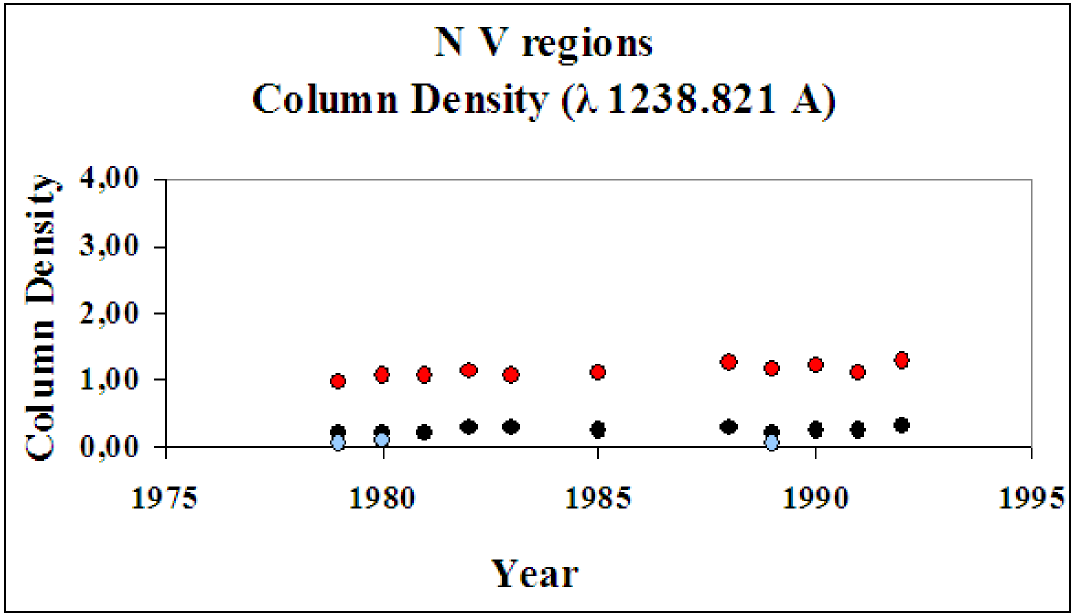
c component: 0.07×10^{10} cm^{-2}

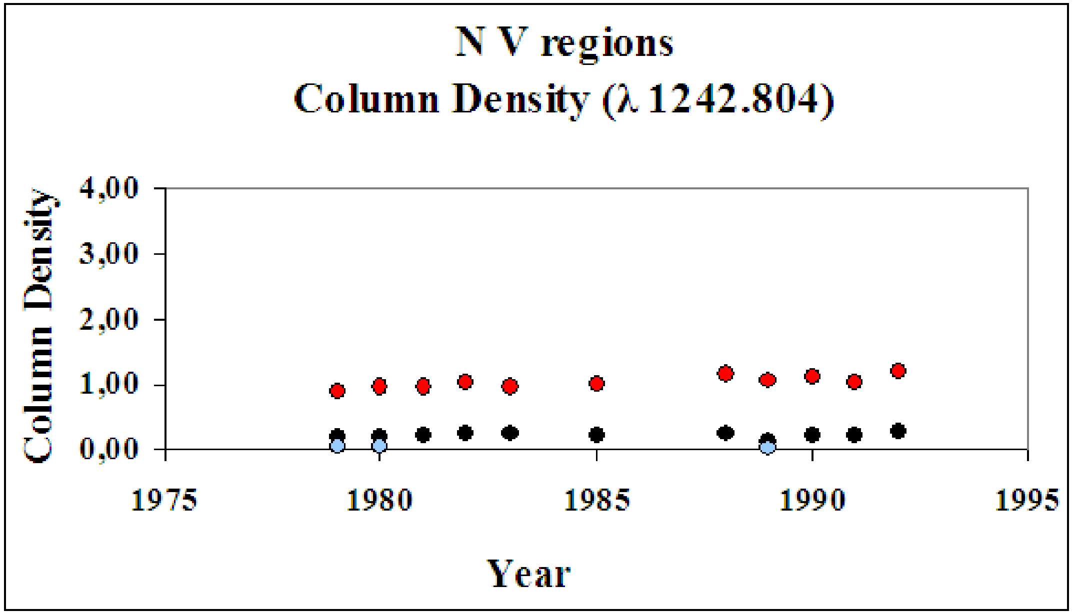
λ 1242.804 Å

a component: 1.03×10^{10} cm^{-2}

b component: 0.23×10^{10} cm^{-2}

c component: 0.06×10^{10} cm^{-2}





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