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New measurements of Venus cloud winds from Galileo SSI images

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We present new results on Venus winds at cloud level obtained from the analysis of Galileo images of Venus captured during its flyby of Venus in February 1990. Images were taken at two different filters: 418 nm (violet) and 986 nm (near infrared) sensing the clouds at two nearby altitudes. Polar stereographic projections were used for easier tracer identification at high latitudes. We agree with previous obtained results for the winds at low latitudes and we extend the zonal wind profile up to the polar latitudes (70 deg N and 70 deg S at 418 nm and 70 deg N at 986 nm). There is a strong decrease in the magnitude of the zonal winds poleward of latitudes 45 deg N and 50 deg S, accompanied by a strong horizontal shear previously anticipated with Pioneer Venus radio-occultation data.