

First constraints on the intrinsic CMB dipole and our velocity with Doppler and aberration - Tables

Pedro da Silveira Ferreira,¹ Miguel Quartin^{1,2}

¹*Observatório do Valongo, Universidade Federal do Rio de Janeiro, 20080-090, Rio de Janeiro, RJ, Brazil*

²*Instituto de Física, Universidade Federal do Rio de Janeiro, 21941-972, Rio de Janeiro, RJ, Brazil*

6 January 2021

TT		$ \mathbf{v} $ [km/s]	$l(^{\circ})$	$b(^{\circ})$
SMICA	Aberration	$360 \pm 130 \pm 13$	$279 \pm 36 \pm 1$	$63 \pm 21 \pm 1$
	Doppler	$410 \pm 150 \pm 13$	$197 \pm 57 \pm 3$	$-7 \pm 33 \pm 1$
	Boost	$330 \pm 100 \pm 11$	$228 \pm 23 \pm .1$	$48 \pm 15 \pm .2$
NILC	Aberration	$330 \pm 130 \pm 13$	$295 \pm 35 \pm 2$	$57 \pm 22 \pm .3$
	Doppler	$340 \pm 150 \pm 10$	$201 \pm 60 \pm 3$	$16 \pm 32 \pm 1$
	Boost	$330 \pm 100 \pm 11$	$242 \pm 22 \pm 1$	$52 \pm 15 \pm .1$
EE		$ \mathbf{v} $ [km/s]	$l(^{\circ})$	$b(^{\circ})$
SMICA	Aberration	$250 \pm 160 \pm 17$	$272 \pm 66 \pm .1$	$16 \pm 31 \pm 1$
	Doppler	$600 \pm 340 \pm 380$	$275 \pm 103 \pm 6$	$7 \pm 40 \pm 1$
	Boost	$330 \pm 150 \pm 14$	$251 \pm 64 \pm 3$	$24 \pm 31 \pm .5$
NILC	Aberration	$280 \pm 150 \pm 15$	$250 \pm 65 \pm .3$	$30 \pm 31 \pm 1$
	Doppler	$620 \pm 330 \pm 350$	$220 \pm 100 \pm 5$	$7 \pm 41 \pm 1$
	Boost	$360 \pm 150 \pm 15$	$276 \pm 61 \pm 1$	$41 \pm 31 \pm .2$
TT+EE		$ \mathbf{v} $ [km/s]	$l(^{\circ})$	$b(^{\circ})$
SMICA	Aberration	$300 \pm 99 \pm 13$	$276 \pm 32 \pm .1$	$51 \pm 19 \pm .7$
	Doppler	$390 \pm 140 \pm 13$	$210 \pm 56 \pm 3$	$-2 \pm 30 \pm .5$
	Boost	$321 \pm 84 \pm 9$	$234 \pm 21 \pm .1$	$43 \pm 15 \pm .2$
NILC	Aberration	$300 \pm 100 \pm 10$	$280 \pm 32 \pm .3$	$50 \pm 20 \pm .3$
	Doppler	$380 \pm 140 \pm 10$	$208 \pm 56 \pm 2$	$13 \pm 30 \pm .2$
	Boost	$332 \pm 83 \pm 9$	$250 \pm 22 \pm 1$	$50 \pm 15 \pm .1$

Table 1. Final results in galactic coordinates for each estimator and component separation method (1σ uncertainties). In each case the first error is statistical and the second is the (usually negligible) simulated systematics due to masking, anisotropic noise and leakage between Doppler and aberration. The aberration results are a more model-independent estimate of our peculiar velocity.