



Fig. 1. — Two-point correlation as a function of opening angle for non-dithered field's centers on a perfect hemisphere. Due to the combination of 3,266 points, we will obtain 5,331,745 results for correlation function, also the total area under the curve. Notice that, aside from the main structure, there are some obvious and regular spikes because of the regular pattern used to tessellate the sky.



Fig. 2. — Two-point correlation as a function of opening angle for dithered field's centers on a perfect hemisphere. Since the number of field's centers remains unchanged, the total area under the curve will remain the same. Note that most of the spikes are shortened but the fine structure is not completely smoothed out.



Fig. 3.—Moving-average two-point correlation as a function of opening angle for dithered field's centers on a perfect hemisphere. Because of running averages, most of the spikes disappear, and what is left is the main structure derived from the geometry used to tile the sky. Note that the maximum is located at around 45° .



Fig. 4. – Unnormalized two-point correlation as a function of opening angle for perfectly smooth area distribution on a perfect hemisphere. Note that the maximum is located at 63.76° .



Fig. 5.—Normalized two-point correlation as a function of opening angle for non-dithered field's centers. This normalized correlation shows that regular and large spikes show up in the normalized correlation with opening angle, especially at small angles.



Fig. 6.—Normalized two-point correlation as a function of opening angle for dithered field's centers. After being dithered, the regular pattern is significantly rooted out and the fluctuation reduces relatively quickly at small angles.



Fig. 7.—A general map of the r-band sky coverage in cronos92, where blue indicates fewer visits and red indicates more visits. South Pole is at the bottom.



Fig. 8. – Two-point correlation as a function of opening angle for non-dithered Cronos 92 field's centers. Due to the combination of 3,277 points, the total area under the curve is 5,367,726. Notice that there are still obvious but irregular spikes because of the irregular pattern used to tessellate the sky.



Fig. 9.—Two-point correlation as a function of opening angle for dithered Cronos 92 field's centers. Note that although most of the spikes are shortened, the fine structure is not yet completely smoothed out, and also the main structure is slightly deformed to show the correlation for an even more ideal and random distribution.



Fig. 10.—Moving-average two-point correlation as a function of opening angle for dithered Cronos 92 field's centers. This main structure, derived from the geometry used to tile the sky in Cronos 92, will since be used as normalization.



Fig. 11.—Normalized two-point correlation as a function of opening angle for non-dithered Cronos 92 field's centers. This normalized correlation illustrates that large spikes appear as well, especially at small angles, but there is no apparently regular pattern any more.



Fig. 12. – Normalized two-point correlation as a function of opening angle for dithered Cronos 92 field's centers. Similarly, after being dithered, those large spikes are significantly rooted out and the fluctuation reduces relatively quickly at small angles.



13.—Normalized correlation for non-dithered Cronos 92 field's centers. Each field's center is weight by number of galaxies, derived from first m5 in the database with a straight line fit approximation applied in conversion from m5 to number of galaxies.



Fig. 14. – Normalized correlation for non-dithered Cronos 92 field's centers. Each field's center is weight by number of galaxies, derived from coadded m5 in the database with a straight line fit approximation applied in conversion from m5 to number of galaxies.



Fig. 15. – Normalized correlation for non-dithered Cronos 92 field's centers. Each field's center is weight by number of galaxies, derived from coadded m5 in the database with Malmquist bias applied in conversion from m5 to number of galaxies.



Fig. 16.—Normalized correlation for dithered Cronos 92 field's centers. Each field's center is weight by number of galaxies, derived from coadded m5 in the database with Malmquist bias applied in conversion from m5 to number of galaxies.



Fig. 17. – Normalized correlation for non-dithered Cronos 92 field's centers. Each field's center is weight by ellipticity, smeared by first seeing in the database.



Fig. 18. – Normalized correlation for non-dithered Cronos 92 field's centers. Each field's center is weight by ellipticity, smeared by first seeing in the database.



Fig. 19.—Normalized correlation for dithered Cronos 92 field's centers. Each field's center is weight by ellipticity, smeared by first seeing in the database.



Fig. 20. – Normalized correlation for dithered Cronos 92 field's centers. Each field's center is weight by ellipticity, derived from last seeing in the database.