



BO

BO







20

40

100

10

W E

19

10



01234567

0.9

100

2

100





WAVE





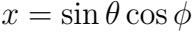


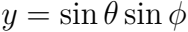




$$x(0), \dots, x(n-1), y(0), \dots, y(n-1), z(0), \dots, z(n-1)$$









COOL-1 W W

2011-11-11 11:11





disadvantage

disadvantage

disadvantaged

$\varphi_1, \varphi_2, \varphi_3, \varphi_4, \varphi_5, \varphi_6, \varphi_7, \varphi_8, \varphi_9, \varphi_{10}, \varphi_{11}, \varphi_{12}, \varphi_{13}, \varphi_{14}, \varphi_{15}, \varphi_{16}, \varphi_{17}, \varphi_{18}, \varphi_{19}, \varphi_{20}, \varphi_{21}, \varphi_{22}, \varphi_{23}, \varphi_{24}, \varphi_{25}, \varphi_{26}, \varphi_{27}, \varphi_{28}, \varphi_{29}, \varphi_{30}, \varphi_{31}, \varphi_{32}, \varphi_{33}, \varphi_{34}, \varphi_{35}, \varphi_{36}, \varphi_{37}, \varphi_{38}, \varphi_{39}, \varphi_{40}, \varphi_{41}, \varphi_{42}, \varphi_{43}, \varphi_{44}, \varphi_{45}, \varphi_{46}, \varphi_{47}, \varphi_{48}, \varphi_{49}, \varphi_{50}, \varphi_{51}, \varphi_{52}, \varphi_{53}, \varphi_{54}, \varphi_{55}, \varphi_{56}, \varphi_{57}, \varphi_{58}, \varphi_{59}, \varphi_{60}, \varphi_{61}, \varphi_{62}, \varphi_{63}, \varphi_{64}, \varphi_{65}, \varphi_{66}, \varphi_{67}, \varphi_{68}, \varphi_{69}, \varphi_{70}, \varphi_{71}, \varphi_{72}, \varphi_{73}, \varphi_{74}, \varphi_{75}, \varphi_{76}, \varphi_{77}, \varphi_{78}, \varphi_{79}, \varphi_{80}, \varphi_{81}, \varphi_{82}, \varphi_{83}, \varphi_{84}, \varphi_{85}, \varphi_{86}, \varphi_{87}, \varphi_{88}, \varphi_{89}, \varphi_{90}, \varphi_{91}, \varphi_{92}, \varphi_{93}, \varphi_{94}, \varphi_{95}, \varphi_{96}, \varphi_{97}, \varphi_{98}, \varphi_{99}, \varphi_{100}$



BO





$$\int d\mathbf{r} \, b(\mathbf{r}) \, Y_{\ell m}^* (\mathbf{r})$$



$$b_{\ell 0} \sqrt{\frac{4\pi}{2\ell+1}}$$

$$\int b(\theta) P_e(\theta) \sin(\theta) d\theta \, 2\pi$$



200,000

$$O(b)\sqrt{2/b} + 1)\Delta(b)$$

1000

100

+

1

00

2

π



$$b(\mathbf{r}) = \sum_{lm} b_{lm} Y_{lm}(\mathbf{r}),$$

$$b(\theta) = \sum_{\ell} b(\ell) P_{\ell}(\theta) \frac{2\ell + 1}{4\pi},$$

$$b(\ell) = b_{\ell 0} \sqrt{\frac{4\pi}{2\ell + 1}}$$



`euler_matrix_new` allows the generation of a rotation Euler matrix. The user can choose the three Euler angles, and the three axes of rotation.

If `vec` is an $N \times 3$ array containing N 3D vectors,

`vecr = vec # euler_matrix_new(a1,a2,a3,/Y)`

will be the rotated vectors. Alternatively, `rotate_coord` can also be used to rotate `vec` into `vecr`.

This routine supersedes `euler_matrix`, which had inconsistent angle definitions. The relation between the two routines is as follows :

`euler_matrix_new(a,b,c,/X) = euler_matrix(-a,-b,-c,/X)`
`= Transpose(euler_matrix(c, b, a,/X))`

`euler_matrix_new(a,b,c,/Y) = euler_matrix(-a, b,-c,/Y)`
`= Transpose(euler_matrix(c,-b, a,/Y))`

`euler_matrix_new(a,b,c,/Z) = euler_matrix(-a, b,-c,/Z)`

A sequence of 10 grayscale images showing the handwritten digit '2' being formed stroke by stroke. The sequence starts with a single pixel and ends with the complete digit '2'.



$C_0 = \sum_{n=0}^{\infty} C_n x^n$



$e^{\pi \sqrt{163}}$

A pixelated, black and white graphic of the word "EQUATORIAL". The letters are rendered in a stylized, outlined font with a dithered or pixelated texture. The text is arranged in a single horizontal line.





OVER THE HORIZON

2020

12/20/2020

should produce something like

196608 128 256 2

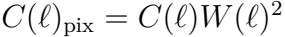
meaning that the map contained in that file has 196608 pixels, the resolution parameter is nside=128, the maximum multipole was 256, and this a full sky map (type 2).





$$\sqrt{3/\pi}$$

$$3600/N_{\text{side}}$$



will print out

```
<Expression>      INT      =      1
```

```
A+1      INT      =      1
```

$$a_{lm}^{\text{OUT}} = a_{lm}^{\text{IN}} \frac{B^{\text{OUT}}(\ell) P^{\text{OUT}}(\ell)}{B^{\text{IN}}(\ell) P^{\text{IN}}(\ell)},$$

100

POE = 1

EQ = 1







$\psi = \sin \left(\frac{\pi}{2} \right)$





1120



$\sin^{-1}(\sin 2)$

Q21x

esloges

510351030



[illegible]



12.03.2013



0 = 1001000000



11.02.21



$$N_w = \frac{(N_{\text{side}} + 1)(3N_{\text{side}} + 1)}{4}.$$

$$N_{\text{template}} = \frac{1 + N_{\text{side}}(N_{\text{side}} + 6)}{4}.$$



2022-2023

2022.07.14

2023-2024

exp(0), exp(1),

www.vivo.com

2019.09.19

www.woolworths.com.au

www.owls.org

2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 26

75

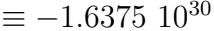
3π4

ex 1/2 odds











Q. 1009/94 - Q. 1010/94

$$I = I \cos(\Delta\varphi) + I \sin(\Delta\varphi)$$

$$2 = \cos \theta \quad 2 = \sin \theta \quad 0 = \sin \theta \quad 2 = \pi \quad 2 =$$

$$2/3 \geq z \geq 0, \quad \phi = 0, \quad \text{or} \quad \phi = \frac{\pi}{4N_{\text{side}}}.$$



$$2/3 \geq z \geq 0, \quad \phi = 0, \quad \text{or} \quad \phi = \frac{\pi}{4N_{\text{side}}}.$$

if set, during **degradation** each big pixel containing one bad or missing small pixel is also considered as bad,

if not set, each big pixel containing at least one good pixel is considered as good (optimistic) default = 0 (:not set)

1v25N2
sidepix16







`write_fits_sb` writes out the information contained in `Prim_stc` and `Exten_stc` in the primary unit and extension of the FITS file `File` respectively. Coordinate systems can also be specified by `Coordsys`. Specifying the ordering scheme is compulsory for **HEALPix** data sets and can be done either in `Header` or by setting `Ordering` or `Nested` or `Ring` to the correct value. If `Ordering` or `Nested` or `Ring` is set, its value overrides what is given in `Header`.

The data is assumed to represent a full sky data set with the number of data points $\text{npix} = 12 * \text{Nside} * \text{Nside}$ unless `Partial` is set *or* the input FITS header contains `OBJECT = 'PARTIAL'`

AND
the `Nside` qualifier is given a valid value *or* the FITS header contains a `NSIDE`.

In the **HEALPix** scheme, invalid or missing pixels should be given the value `!healpix.bad_value = -1.63750×10^{30}` .

If `Nohealpix` is set, the restrictions on `Nside` are void.