



BE

BO







20

40

100

10

W E





0123456789

02

100

100

100





WAVE







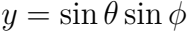




$$x(0), \dots, x(n-1), y(0), \dots, y(n-1), z(0), \dots, z(n-1)$$



WIPES OFF



GOALS

COOL-1 W W

211-1111-1111





disadvantaged

disadvantage

disadvantages

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



BO





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



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

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



2024-2025

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

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)`

2020.11.11



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



$e^{\pi i} = -1$

A pixelated, black and white graphic of the text "100% REAL". The characters are thick and blocky, with a hand-drawn, slightly irregular appearance. The "1" is a simple vertical bar with a short horizontal base. The "0"s are circles with a slight gap at the bottom. The "+" sign is a simple cross. The "R" is a bold, blocky letter. The "E" is a simple, blocky letter. The "L" is a simple vertical bar with a short horizontal base. The "A" is a simple, blocky letter. The overall style is reminiscent of early digital art or a low-resolution font.





OVER THE HORIZON



12m2 side

should produce something like

196608 128 256 2

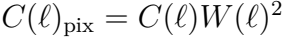
meaning that the map contained in that file has 196608 pixels, the resolution parameter is nside=128, the maximum multipole was 256, and this a full sky map (type 2).





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

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



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

BOLE







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





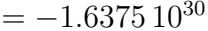
1120



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

Q21x

esloges





[illegible]



12.03.2013



0 = 1001000000



11.02.21



A pixelated, black and white graphic of the text "WAVEPIX 10". The text is rendered in a stylized, blocky font where each character is composed of individual pixels in various shades of gray and black. The "W" and "P" are notably larger and more complex in their pixel structure than the other letters. The overall aesthetic is reminiscent of early digital art or retro video game graphics.

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

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

$$x_N(0), \dots, x_N(n-1), y_N(0), \dots, y_N(n-1), z_N(0), \dots, z_N(n-1)$$

$$x_n(0), \dots, x_n(n-1), y_n(0), \dots, y_n(n-1), z_n(0), \dots, z_n(n-1)$$

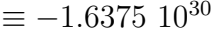
75

SP4

ex 1/2 odds









Q. Was this a fair trial?

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

2020-2021



23456789

$$\phi = 0, \quad \text{or} \quad \phi = \frac{\pi}{4N_{\text{side}}}.$$



23456789

$$\phi = 0, \quad \text{or} \quad \phi = \frac{\pi}{4N_{\text{side}}}.$$

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)

1v2 side 1v2



`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.