

2015-12-16-101744-special-functions

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Contents

See <http://doc.sagemath.org/html/en/reference/functions/sage/functions/special.html>

`help(sage.functions)`

Help on package sage.functions in sage:

NAME

sage.functions

FILE

/projects/sage/sage-6.9/local/lib/python2.7/site-packages/sage/functions/__init__.py

PACKAGE CONTENTS

airy
all
bessel
exp_integral
generalized
hyperbolic
hypergeometric
jacobi
log
min_max
orthogonal_polys
other
piecewise
prime_pi
special
spike_function
transcendental
trig
wigner

See <http://docs.scipy.org/doc/scipy-0.14.0/reference/special.html>

```
import scipy.special
scipy.special.k0(1)
0.42102443824070823
```

```
# there's a lot here
len(scipy.special.__all__)
319
```

MP math provides arbitrary precision special functions: <http://mpmath.org/doc/current/functions/index.html>

```
import mpmath
mpmath.mp.dps = 50
mpmath.hankel1(2, pi)
mpc(real='0.48543393263150910970549571618318923785195258069868956',
imag='-0.099900713929027878773490295584186552327642644463450667')
```