SHBundle
spherical harmonic synthesis/analysis until very high degree/order
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Short Bundle History
The bundle was started in the year 1994 by Nico Sneeuw. After several
additions, it was distributed to a few researchers who added some of their
own functions. However, the individual development from this point onward
resulted in different versions of the bundle.
In 2014 we decided to combine the different versions again, using the source
code management system git which helps us to track changes:
- we moved non-SH functions to other bundles (uberrall, visBundle),
- removed doublets (still keeping some for compatibility reasons),
- merged similar functions and
- enhanced the bundle by adding new functions.

Legendre functions
X-number stabilized (stable until very high degree/order)
test of addition theorem:

SH coefficients
- storage format ([C][S], [S][C]) & conversions
- parser for ICGEM format
- complex SH coefficients

SH synthesis & analysis
on regular grids or pointwise

uberrall
twaitbar
fast, text-based waitbar
getopt
parameter input in quantity-value style, allows to define default parameters
multmat/multmatvec
multiplies two matrices (or a matrix and a vector), where each line represents a rotation matrix
or a point at a certain time

visBundle
skyplot
polar coordinate plot using elevation and azimuth
graypatch
highlight periodic events

bubble_voronoi
Voronoi diagram with radius restricted cells

colbrew
generate different colormaps: e.g. colour-blind friendly, specify min-max values