

## computeDipoleH0NormTest

```
% create a dipole with constant sphere radius in rest position and relative
% to sensor array with position x=0, y=0, z=0
% sphere radius 2mm
r = 2;
% distance in which the field strength is imprinted
z = 5;
% field strength magnitude to imprint in dipole field on sphere radius kA/m
Hmag = 8.5;
% magnetic moment magnitude which rotates the dipole without tilt
Mmag = 1e6;

% compute norm factor
H0norm = computeDipoleH0Norm(Hmag, [Mmag; 0; 0], [0; 0; -(z + r)]);
```

### Test 1: positive scalar factor

```
assert(isscalar(H0norm))
assert(H0norm > 0)
```