warpingphase

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0.1 This is a python module which generates warping phase of an allpass filter.

- Input - namely two parameters as follows:
- w - vector of normalized frequencies i.e., from 0 to π
- a - allpass coefficient
- Output
- wy - warped frequencies vector

```
In [1]: import numpy as np
        # import matplotlib.pyplot as plt
        def warpingphase(w, a):
            #produces (outputs) phase wy for an allpass filter
            #w: input vector of normlized frequencies (0..pi)
            #a: allpass coefficient
            #phase of allpass zero/pole :
            theta = np.angle(a);
            #magnitude of allpass zero/pole :
            r = np.abs(a);
            wy = - w - 2 * np.arctan((r*np.sin(w - theta))/(1 - r*np.cos(w - theta)))
            return wy
```