D4 ↳

D6 ↳

⋮

etc.

	n	$h_p[n]$
p=2	0	.482962913145
	1	.836516303738
	2	.224143868042
	3	−.129409522551
p=3	0	.332670552950
	1	.806891509311
	2	.459877502118
	3	−.135011020010
	4	−.085441273882
	5	.035226291882
p=4	0	.230377813309
	1	.714846570553
	2	.630880767930
	3	−.027983769417
	4	−.187034811719
	5	.030841381836
	6	.032883011667
	7	−.010597401785
p=5	0	.160102397974
	1	.603829269797
	2	.724308528438
	3	.138428145901
	4	−.242294887066
	5	−.032244869585
	6	.077571493840
	7	−.006241490213
	8	−.012580751999
	9	.003335725285
p=6	0	.111540743350
	1	.494623890398
	2	.751133908021
	3	.315250351709
	4	−.226264693965
	5	−.129766867567
	6	.097501605587
	7	.027522865530
	8	−.031582039317
	9	.000553842201
	10	.004777257511
	11	−.001077301085
p=7	0	.077852054085
	1	.396539319482
	2	.729132090846
	3	.469782287405
	4	−.143906003929
	5	−.224036184994
	6	.071309219267
	7	.080612609151
	8	−.038029936935
	9	−.016574541631
	10	.012550998556
	11	.000429577973
	12	−.001801640704
p=8	0	.054415842243
	1	.312871590914
	2	.675630736297
	3	.585354683654
	4	−.015829105256
	5	−.284015542962
	6	.000472484574
	7	.128747426620
	8	−.017369301002
	9	−.04408825393
	10	.013981027917
	11	.008746094047
	12	−.004870352993
	13	−.000391740373
	14	.000675449406
	15	−.000117476784
p=9	0	.038077947364
	1	.243834674613
	2	.604823123690
	3	.657288078051
	4	.133197385825
	5	−.293273783279
	6	−.096840783223
	7	.148540749338
	8	.030725681479
	9	−.067632829061
	10	.000250947115
	11	.022361662124
	12	−.004723204758
	13	−.004281503682
	14	.001847646883
	15	.000230385764
	16	−.000251963189
	17	.000039347320
p=10	0	.026670057901
	1	.188176800078
	2	.527201188932
	3	.688459039454
	4	.281172343661
	5	−.249846424327
	6	−.195946274377
	7	.127369340336
	8	.093057364604
	9	−.071394147166
	10	−.029457536822
	11	.033212674059
	12	.003606553567
	13	−.010733175483
	14	.001395351747
	15	.001992405295
	16	−.000685856695
	17	−.000116466855
	18	.000093588670
	19	−.000013264203

From Mallat, Chap 7

These are the Daubechies CMF filter coeffs from Sec I of the notes.

Each corresponds to a different MRA/wavelet system, called

"D-2p"

D2 = Haar

Screen clipping taken: 3/8/2017 9:06 AM

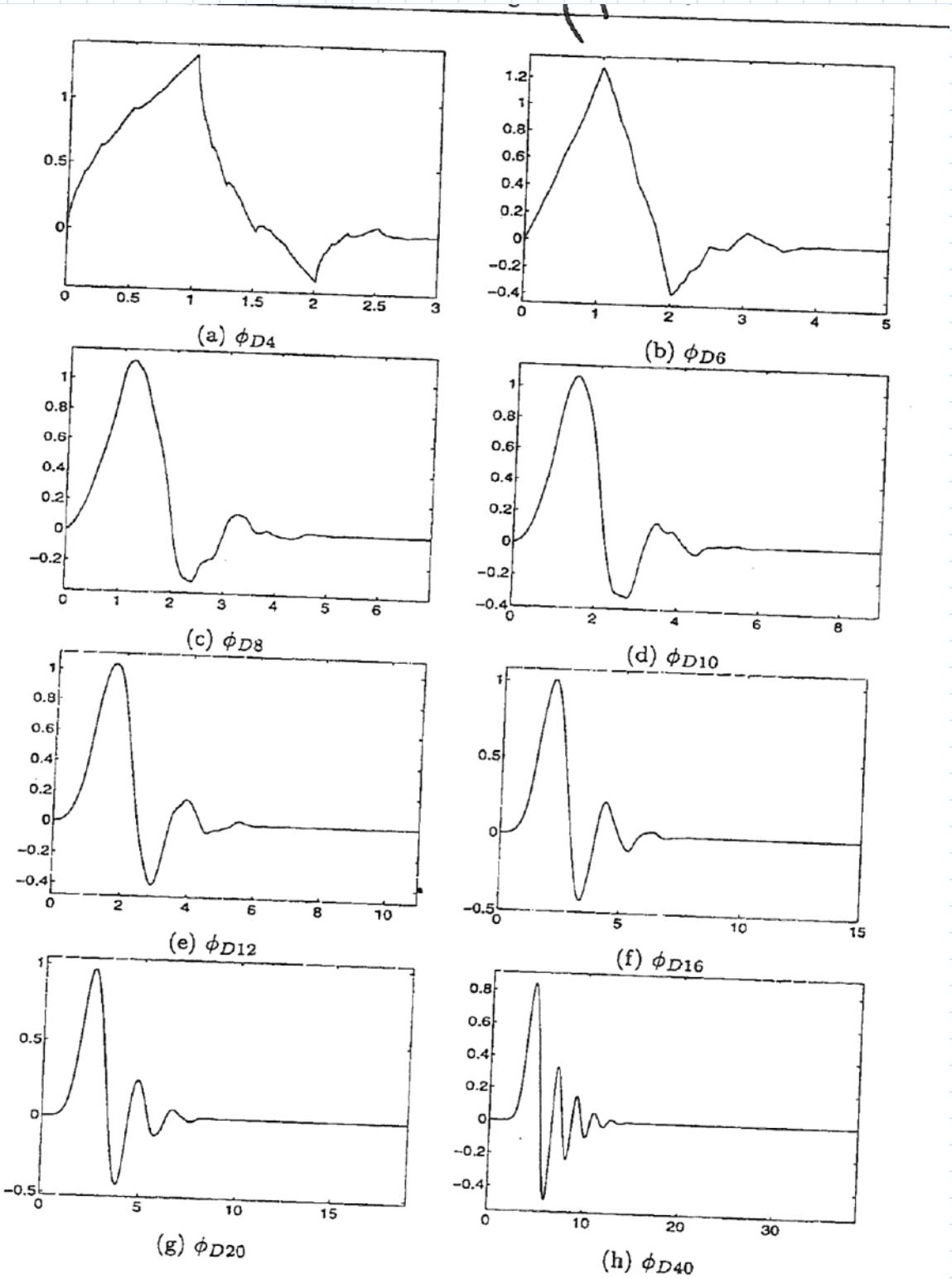

Figure 6.1. Daubechies Scaling Functions, $N = 4, 6, 8, \ldots, 40$

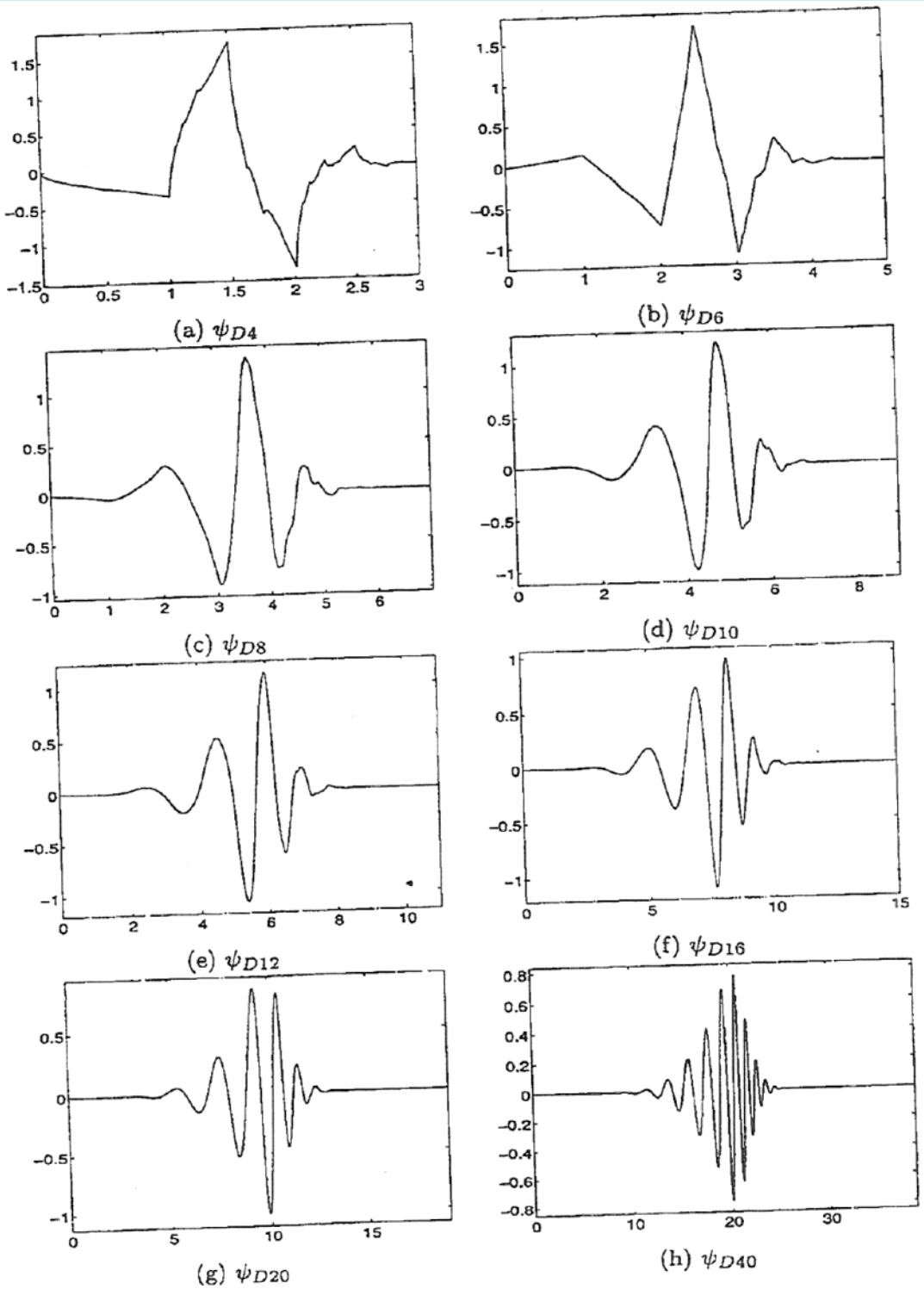

Figure 6.2. Daubechies Wavelets, $N = 4, 6, 8, \ldots, 40$

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The D_{2p} wavelets have p vanishing moments

↳ Thus, the coefficients $h_1[n]$ have the same vanishing moments.

Thus, there are no polynomials of degree $< p$ in the wavelet spaces.