

# avd4 - Ground motion set 1

September 29, 2022

## List of Figures

1	Full FLAC mesh of avd4	3
2	Free-face section of FLAC mesh of avd4	3
3	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at free-face	4
4	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at $x = 5 \cdot H_{face}$	4
5	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at free-field	5
6	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at free-face	5
7	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at $x = 5 \cdot H_{face}$	6
8	Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at free-field	6
9	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at free-face	7
10	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at $x = 5 \cdot H_{face}$	7
11	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at free-field	8
12	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at free-face	8
13	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at $x = 5 \cdot H_{face}$	9
14	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at free-field	9
15	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at free-face	10
16	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at $x = 5 \cdot H_{face}$	10
17	Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at free-field	11
18	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at free-face	11
19	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at $x = 5 \cdot H_{face}$	12
20	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at free-field	12
21	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at free-face	13
22	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at $x = 5 \cdot H_{face}$	13
23	Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at free-field	14
24	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at free-face	14
25	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at $x = 5 \cdot H_{face}$	15
26	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at free-field	15
27	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at free-face	16
28	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at $x = 5 \cdot H_{face}$	16
29	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at free-field	17
30	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at free-face	17
31	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at $x = 5 \cdot H_{face}$	18

32	Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at free-field	18
33	Comparison of surface motions: avd4	19
34	Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 0.5]	19
35	Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 0.75]	20
36	Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.0]	20
37	Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.25]	20
38	Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.5]	20
39	Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 0.5]	20
40	Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 0.75]	21
41	Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.0]	21
42	Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.25]	21
43	Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.5]	21
44	Lateral displacement vs depth: avd4 - Sept. 2010	22
45	Lateral displacement vs depth: avd4 - Feb. 2011	22
46	Lateral displacement vs distance: avd4	23
47	Lateral displacement vs time: avd4	24

# 1 avd4 - Individual results

## 1.1 avd4

Free face height: 3.4 m

Channel width: 26.0 m

No. CPTs: 1

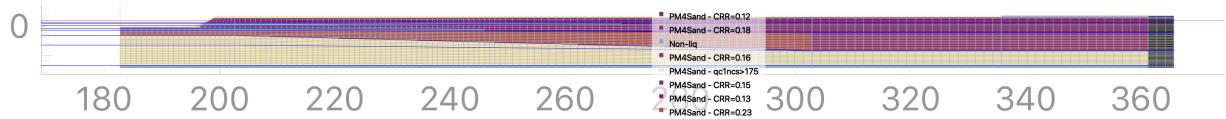


Figure 1: Full FLAC mesh of avd4

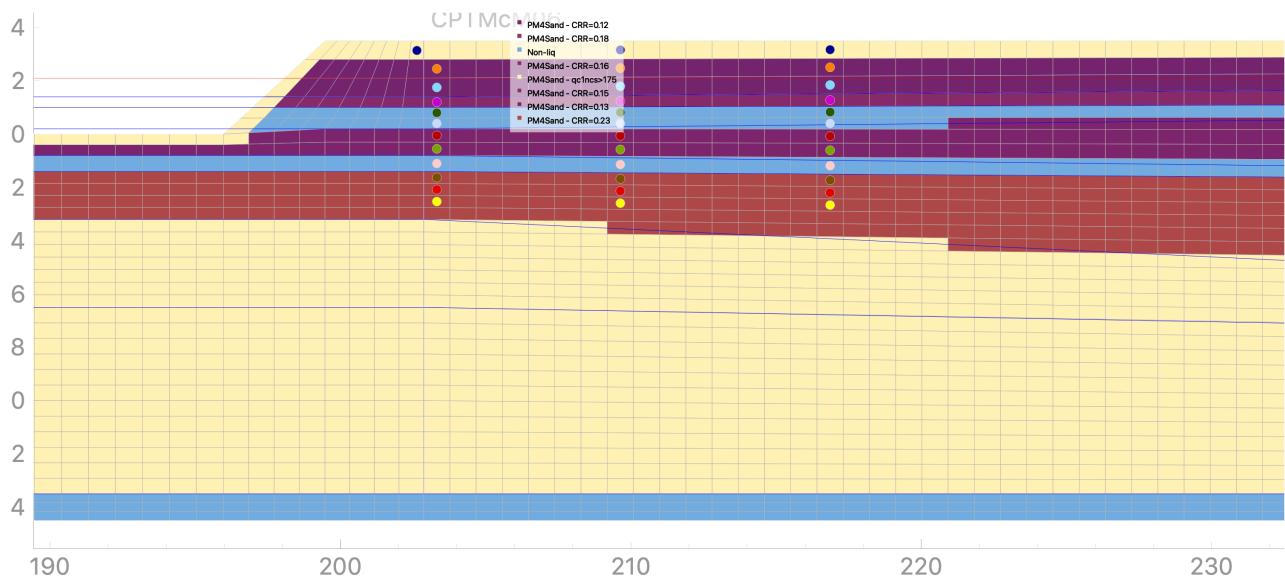


Figure 2: Free-face section of FLAC mesh of avd4

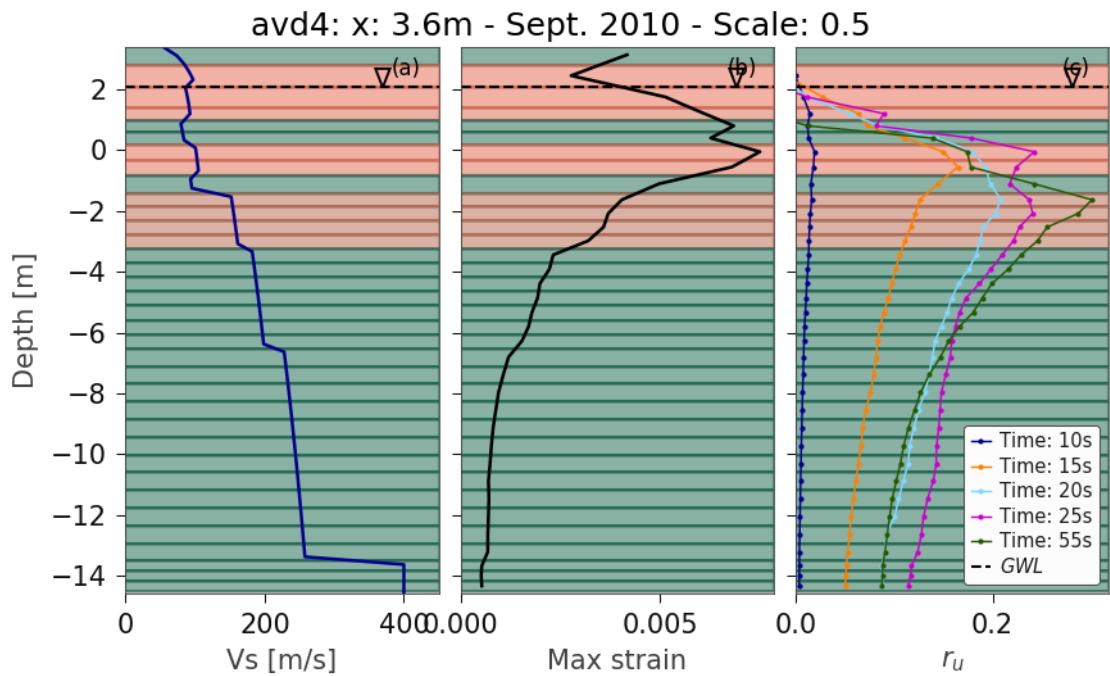


Figure 3: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at free-face

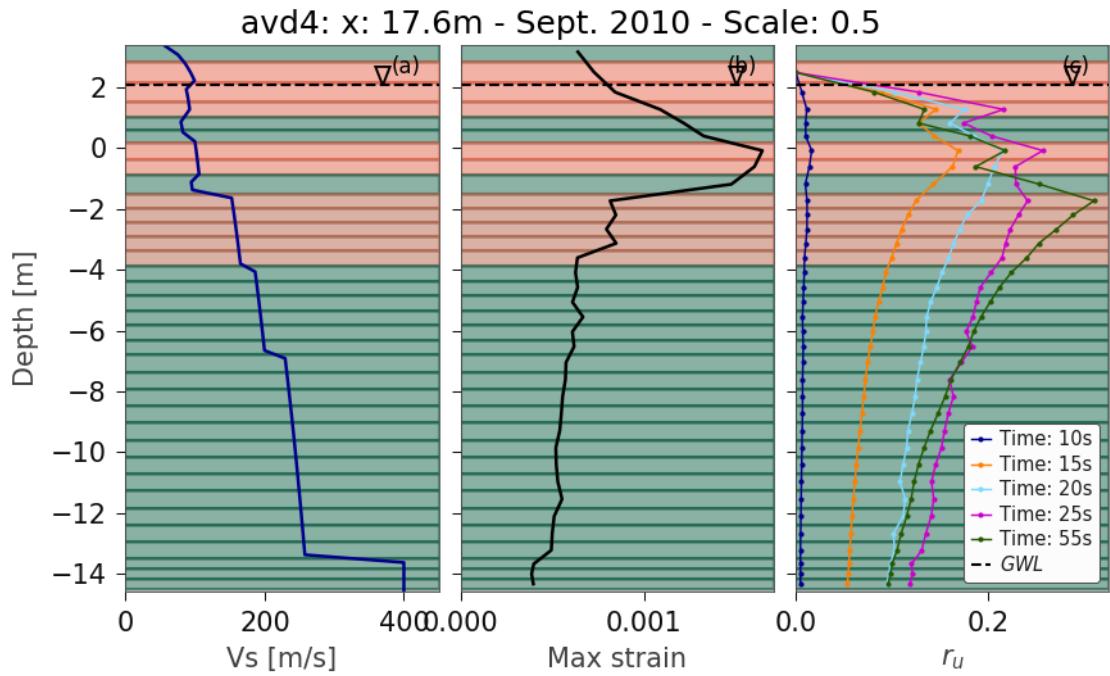


Figure 4: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at  $x = 5 \cdot H_{face}$

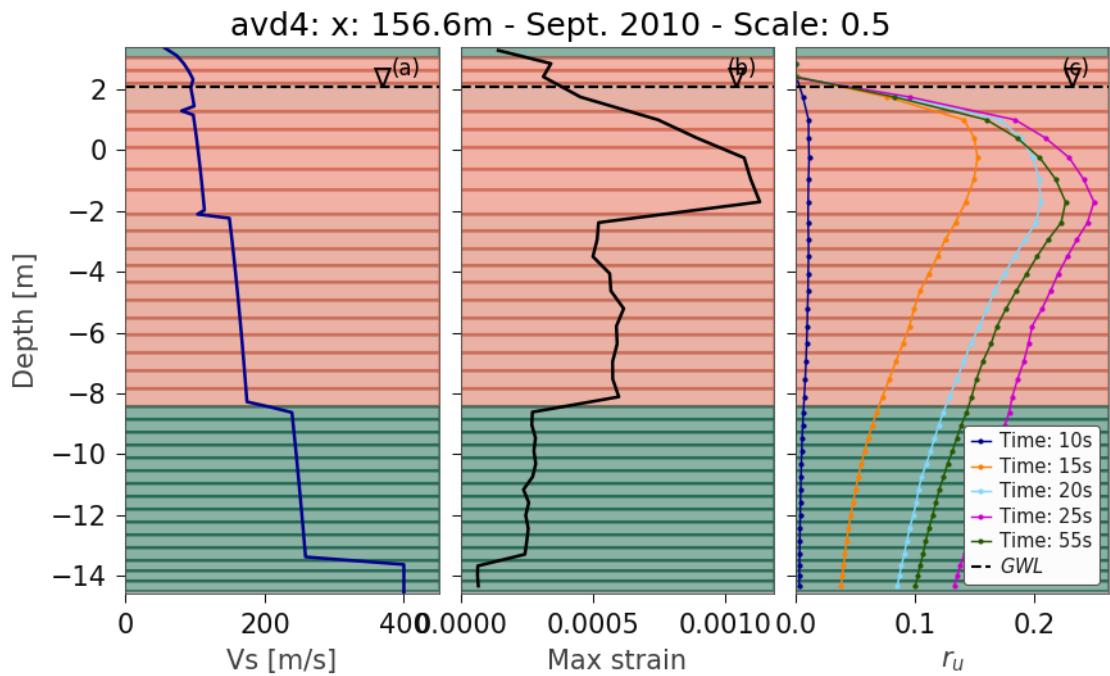


Figure 5: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.5] at free-field

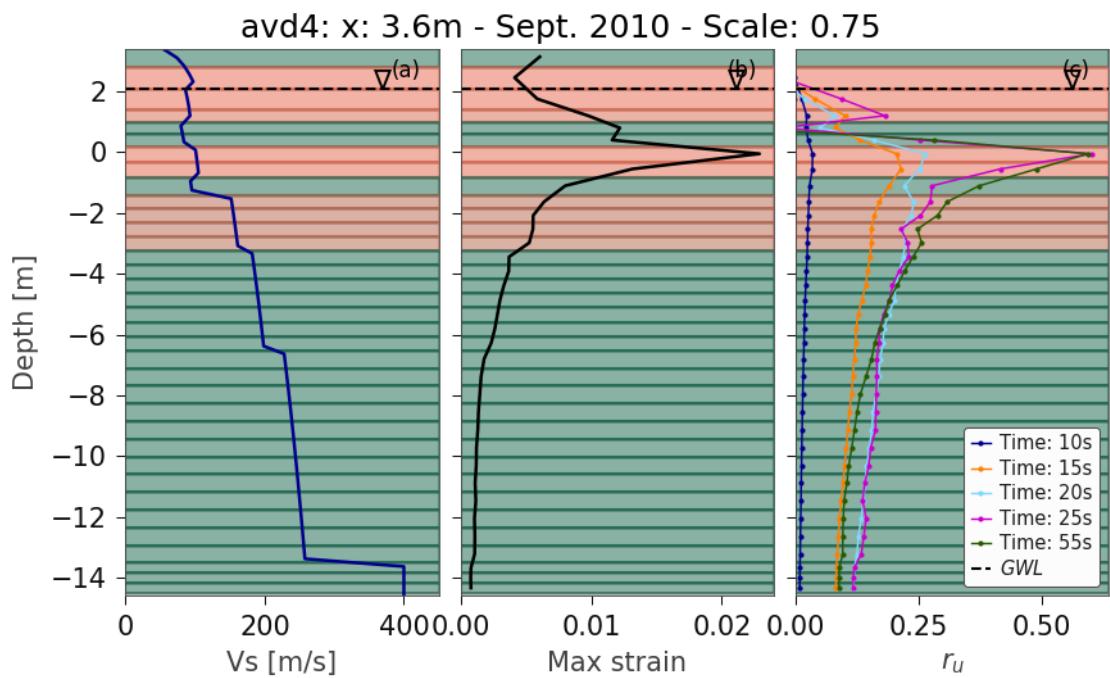


Figure 6: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at free-face

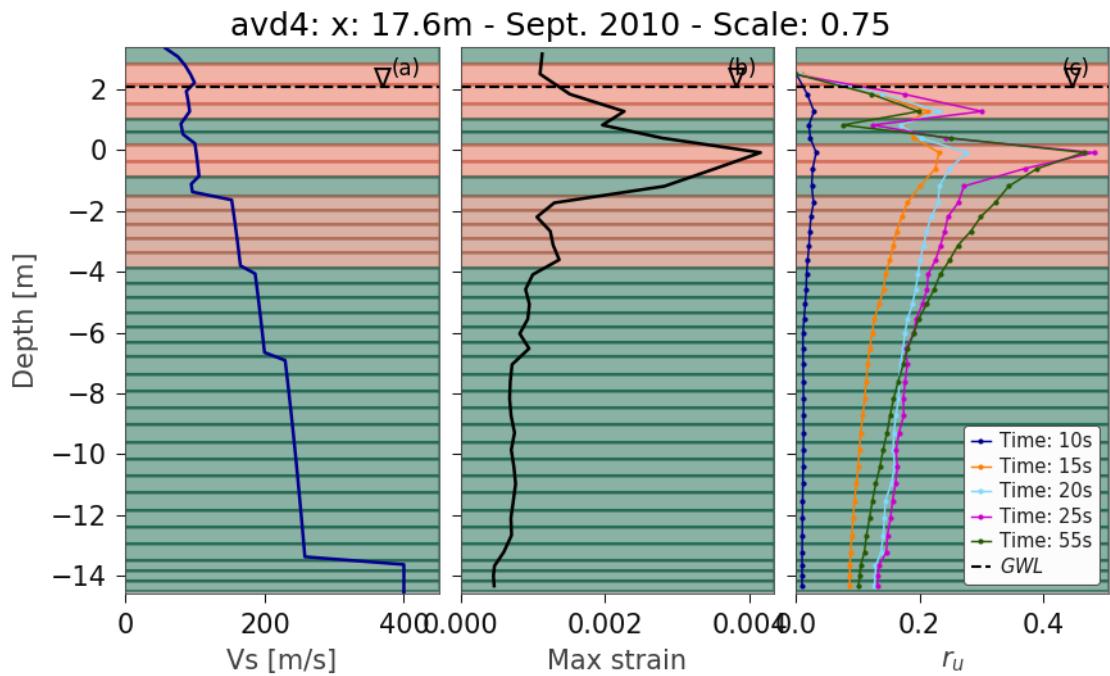


Figure 7: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at  $x = 5 \cdot H_{face}$

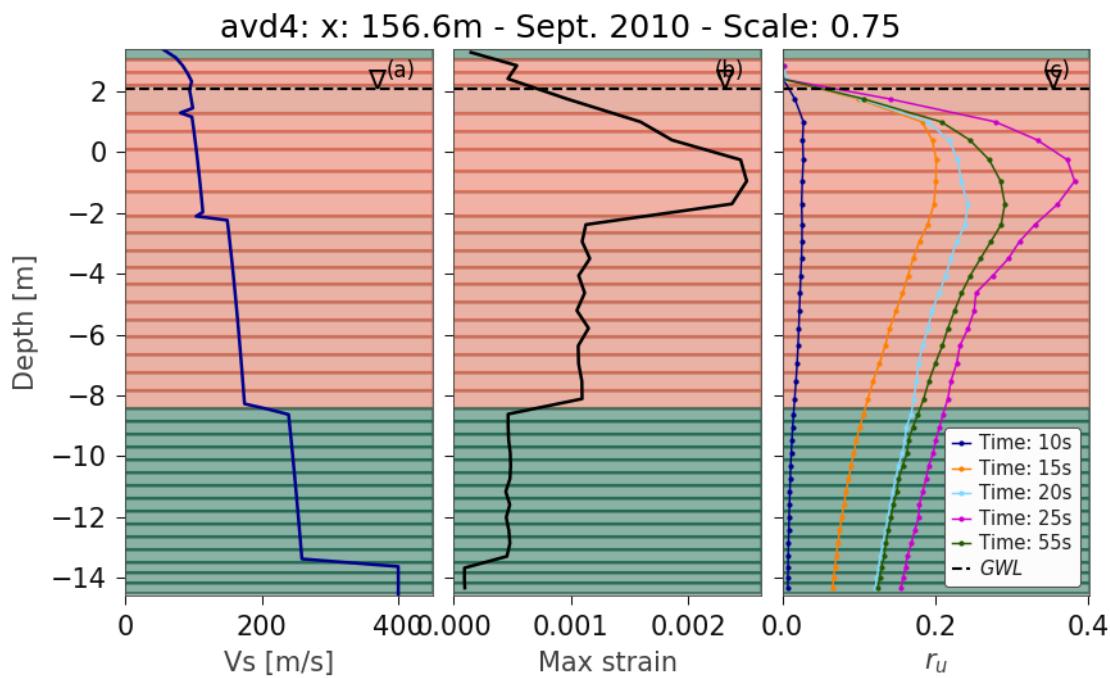


Figure 8: Profile performance (2D) avd4 - Sept. 2010 [scale: 0.75] at free-field

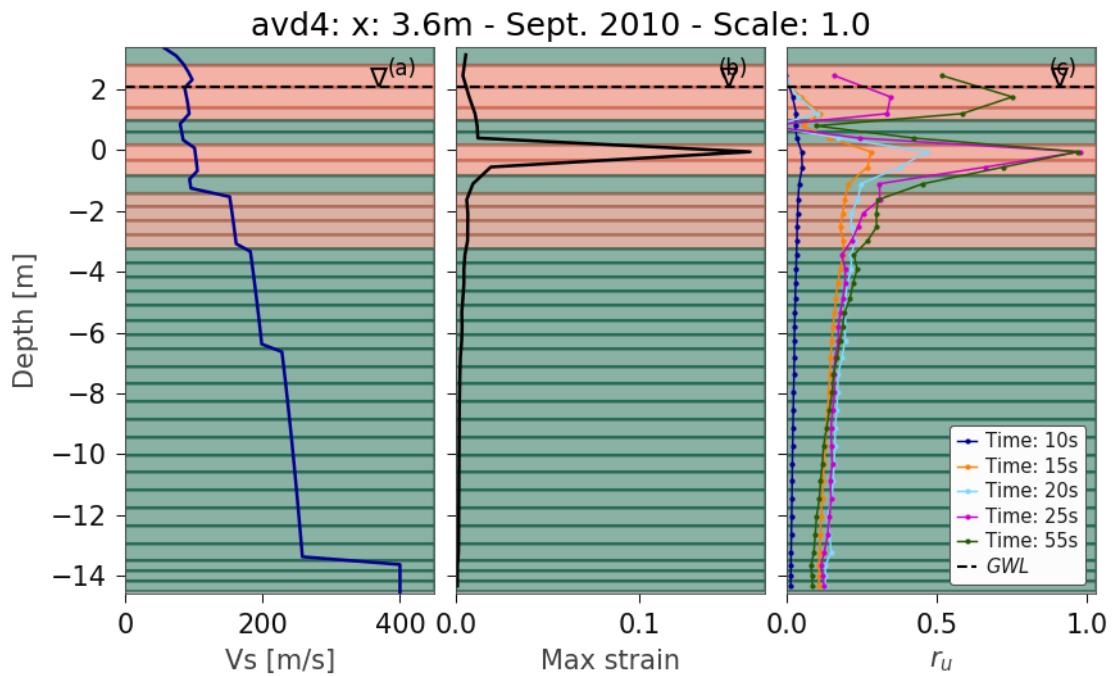


Figure 9: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at free-face

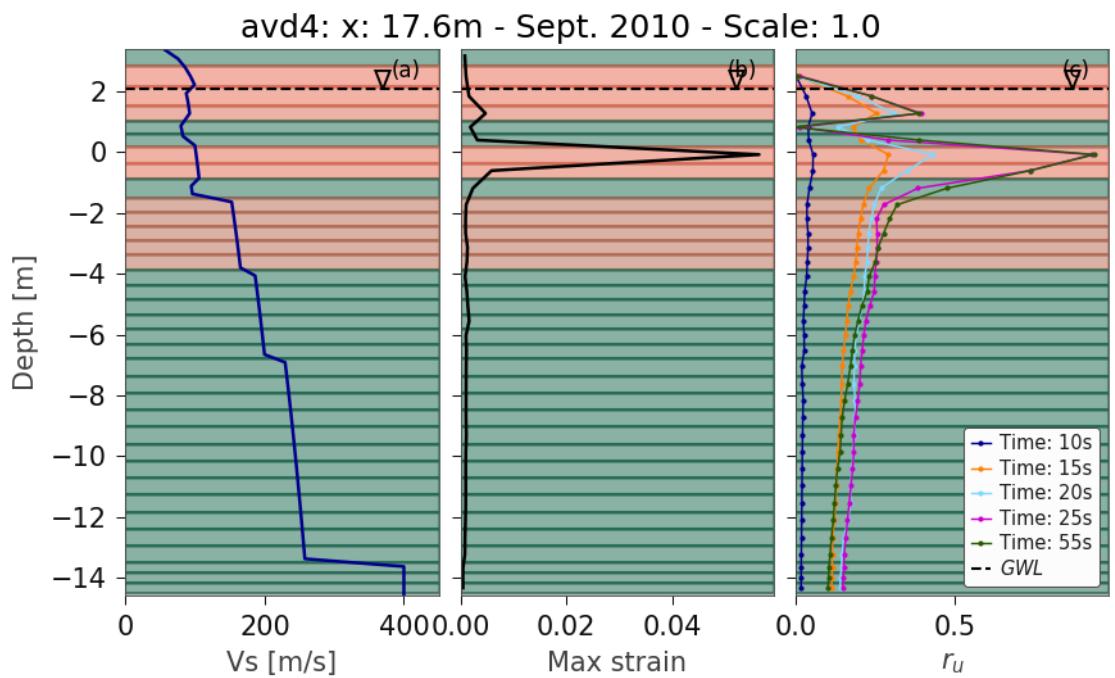


Figure 10: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at  $x = 5 \cdot H_{face}$

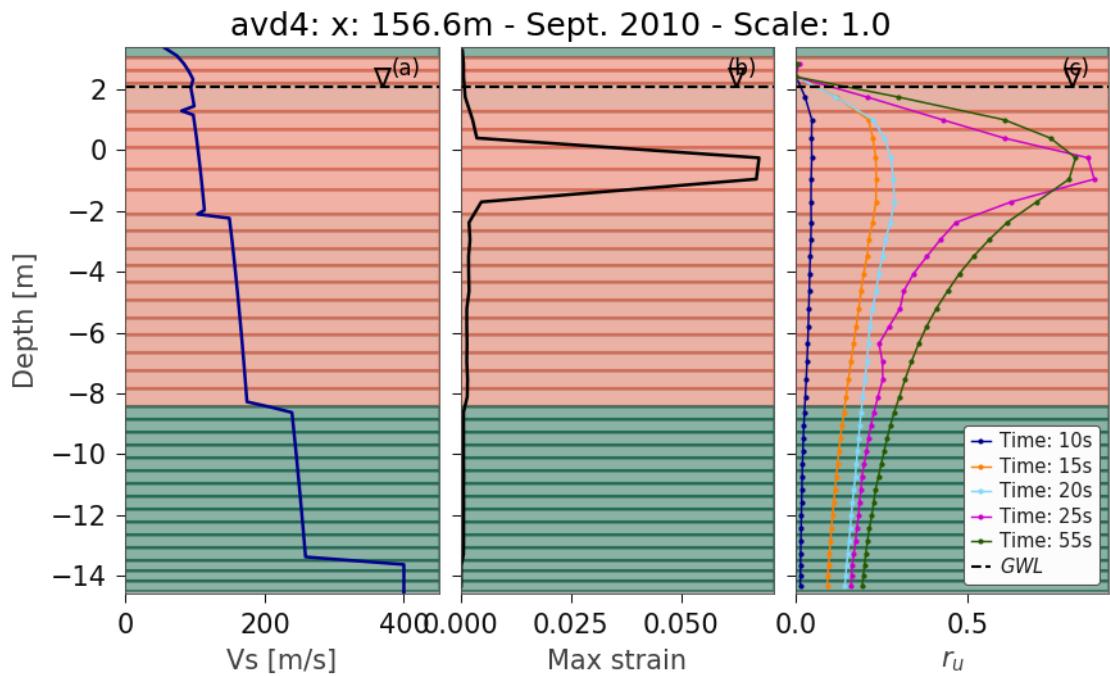


Figure 11: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.0] at free-field

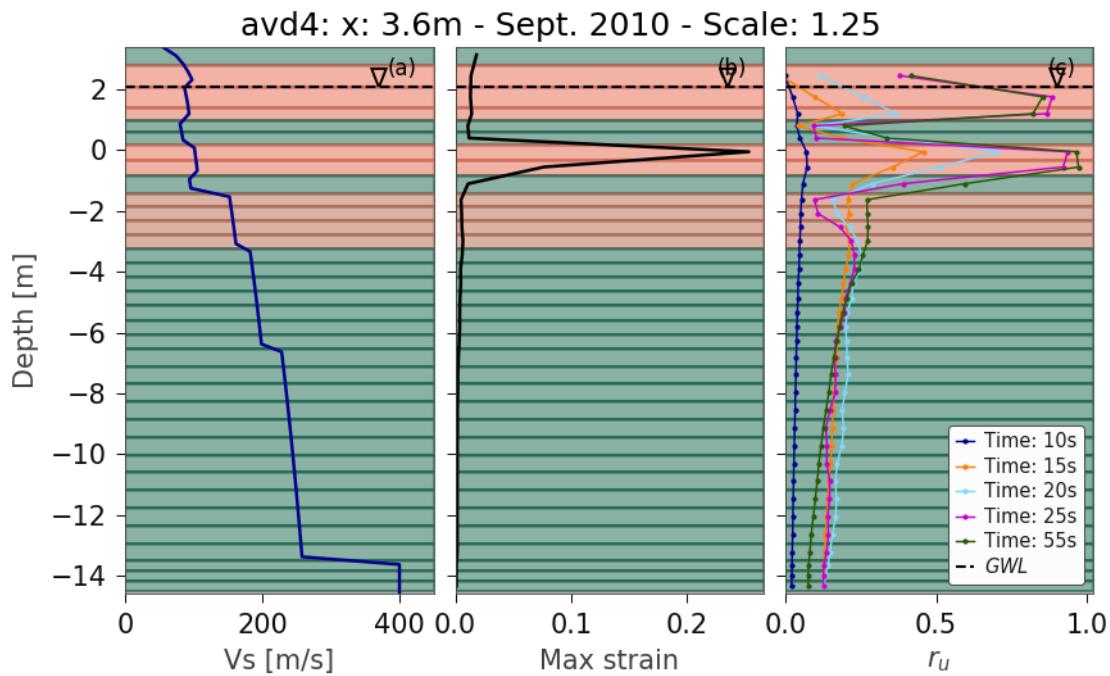


Figure 12: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at free-face

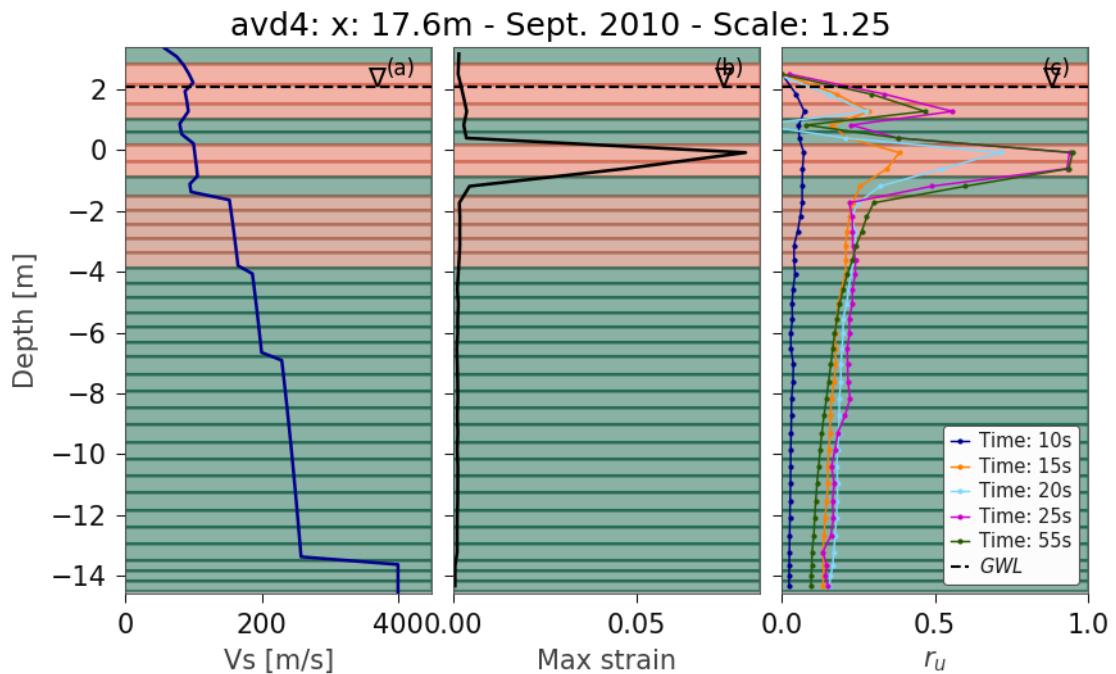


Figure 13: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at  $x = 5 \cdot H_{face}$

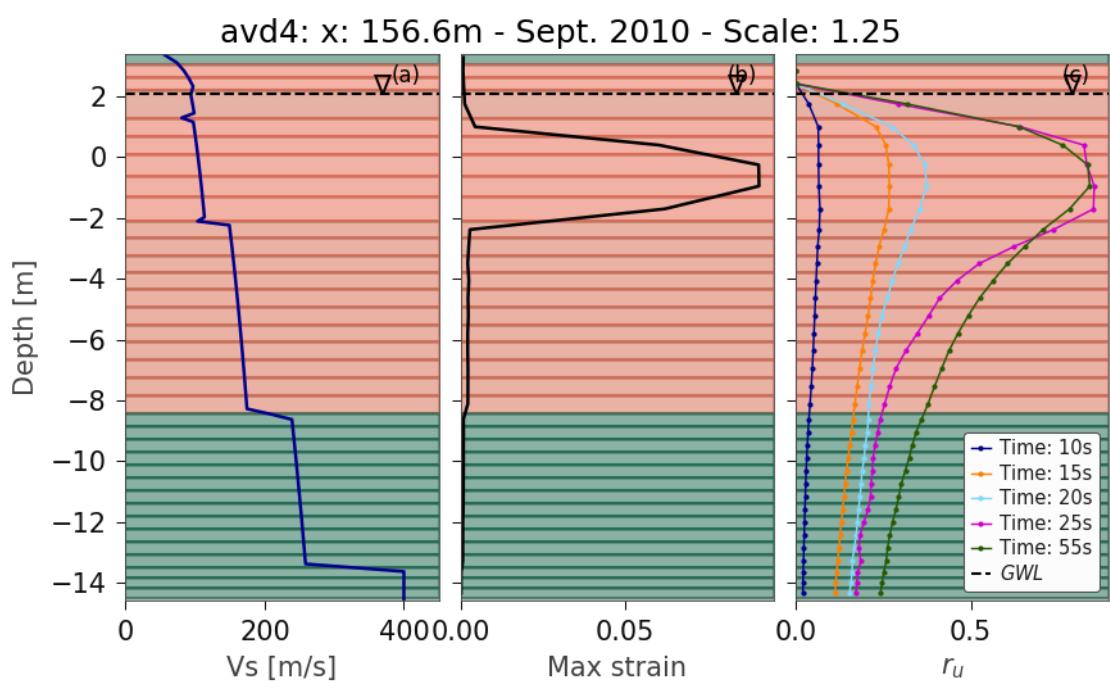


Figure 14: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.25] at free-field

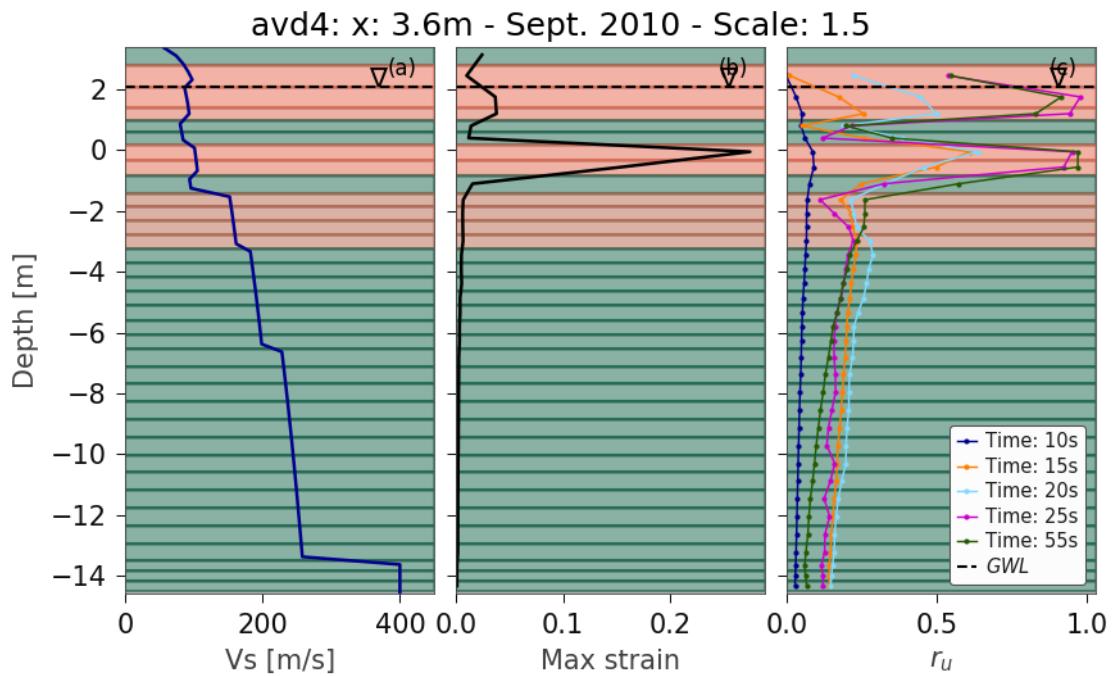


Figure 15: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at free-face

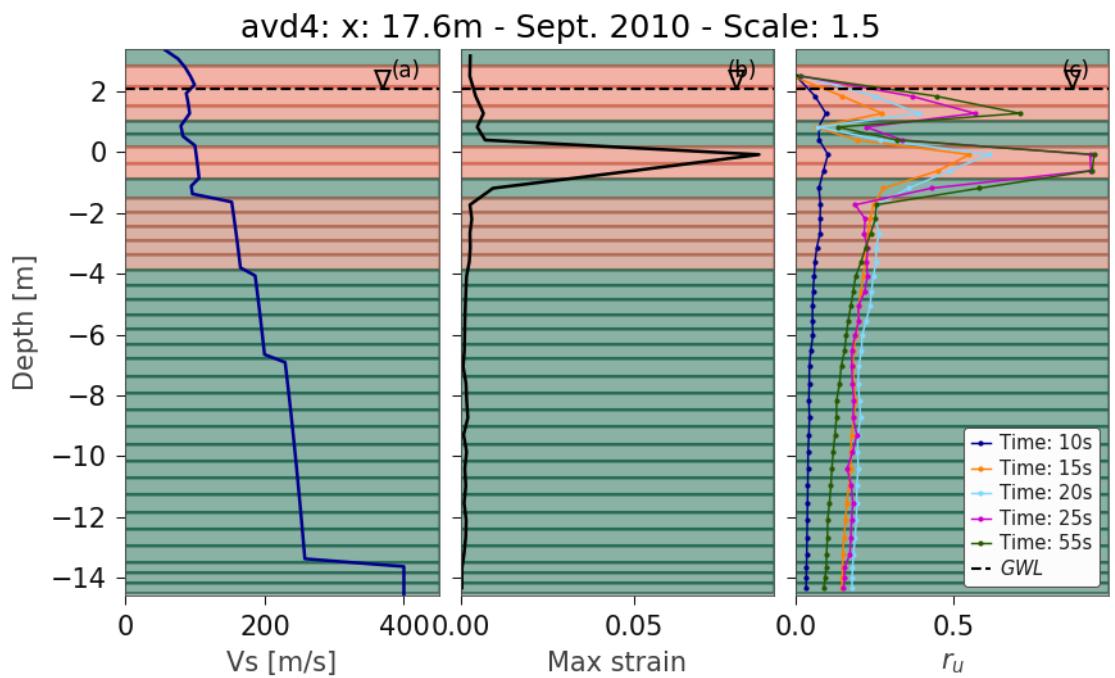


Figure 16: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at  $x = 5 \cdot H_{face}$

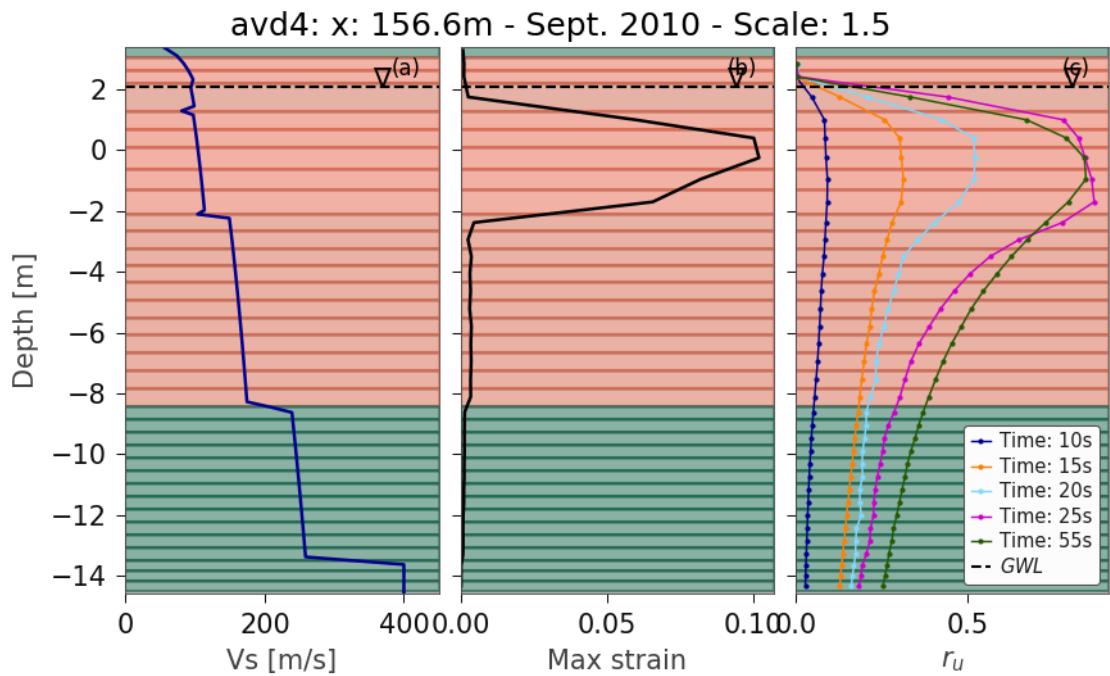


Figure 17: Profile performance (2D) avd4 - Sept. 2010 [scale: 1.5] at free-field

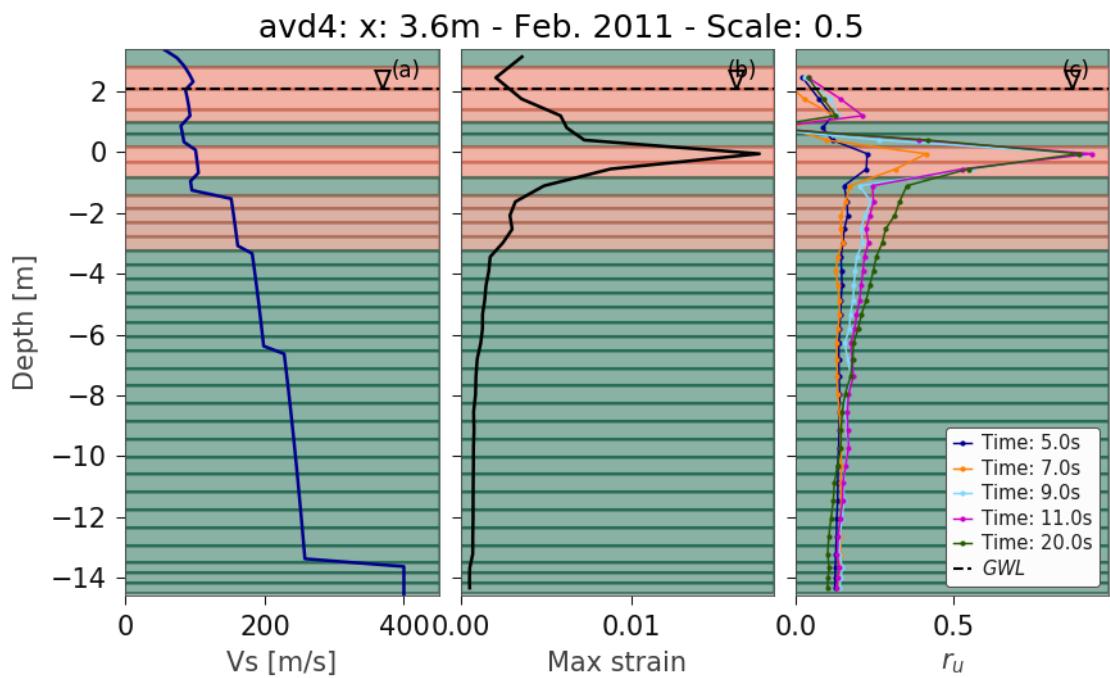


Figure 18: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at free-face

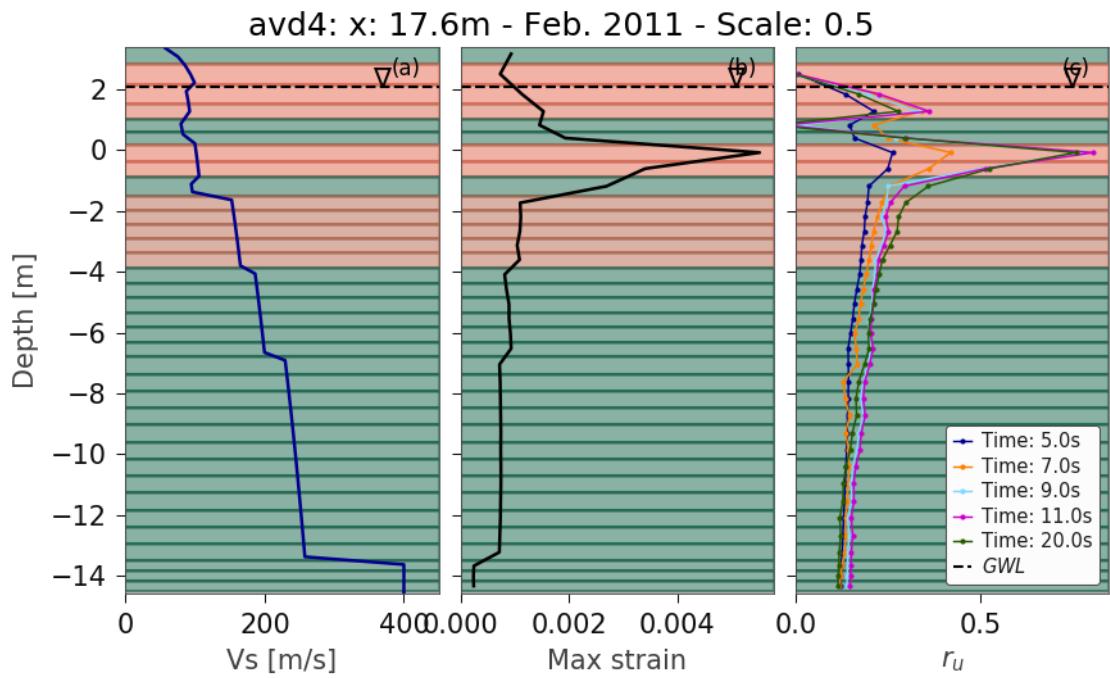


Figure 19: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at  $x = 5 \cdot H_{face}$

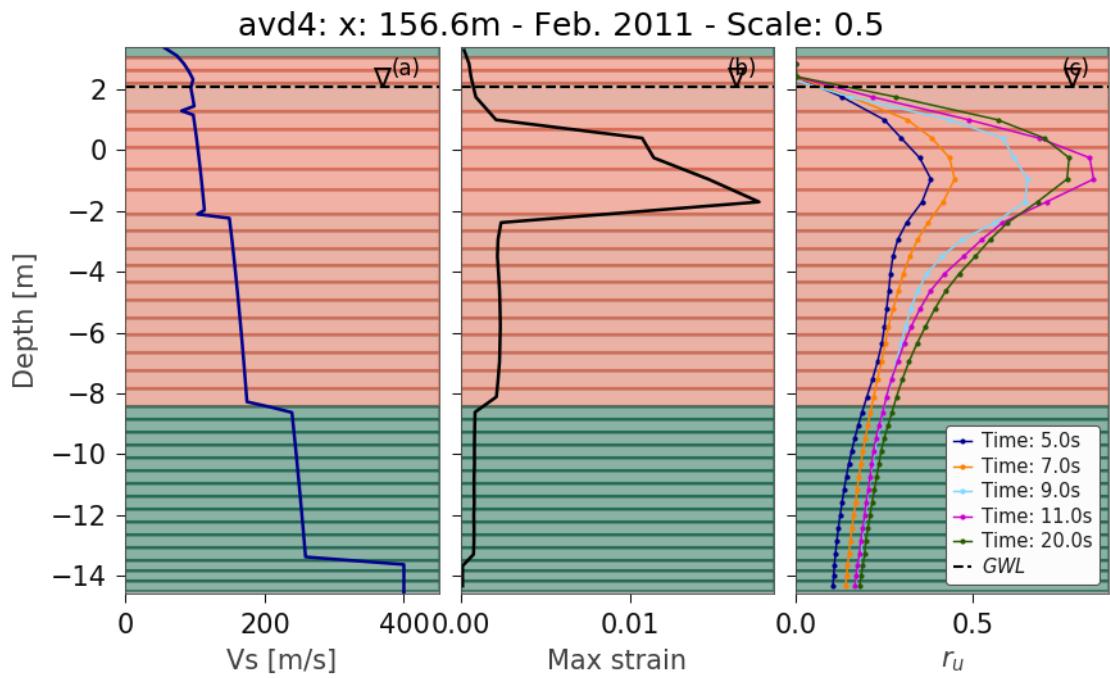


Figure 20: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.5] at free-field

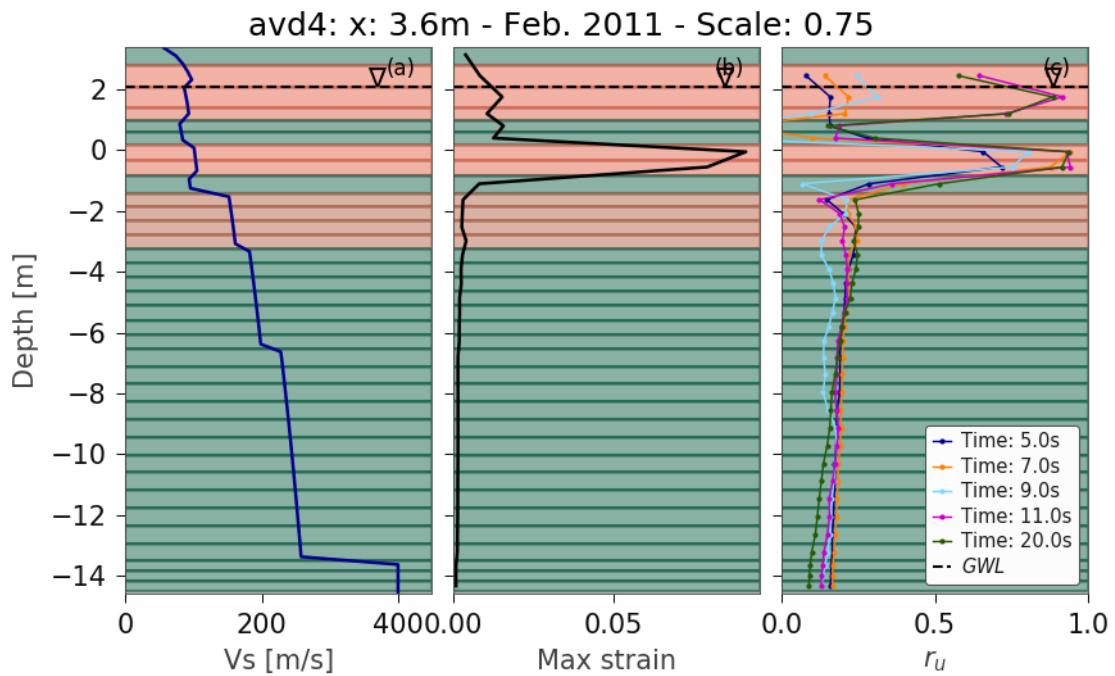


Figure 21: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at free-face

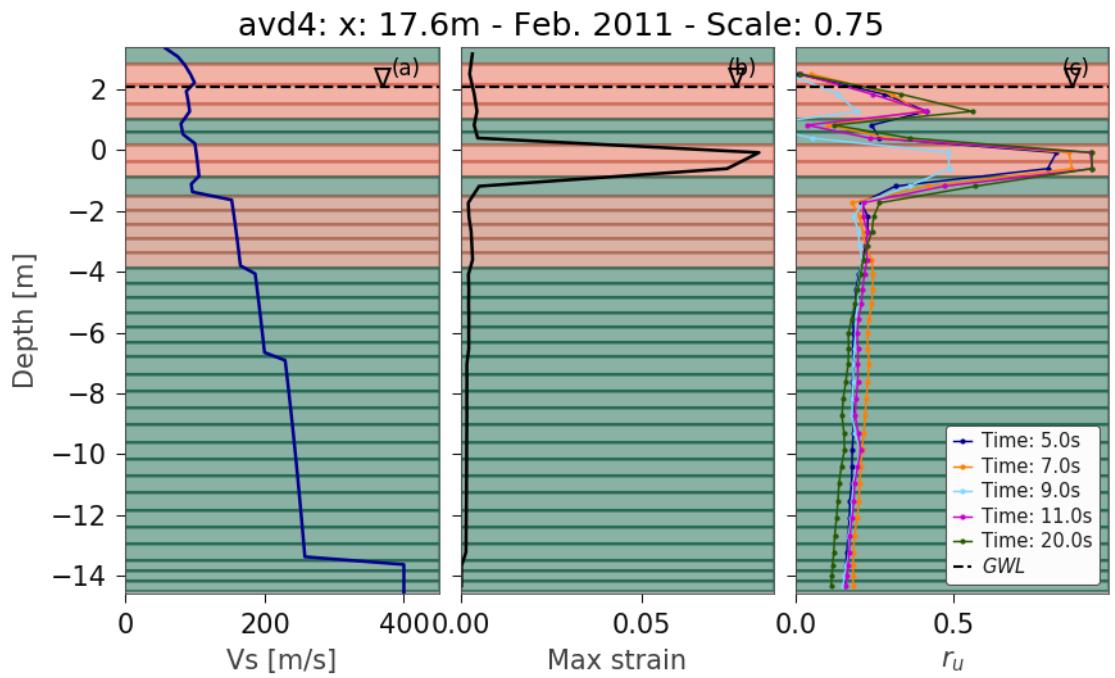


Figure 22: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at  $x = 5 \cdot H_{face}$

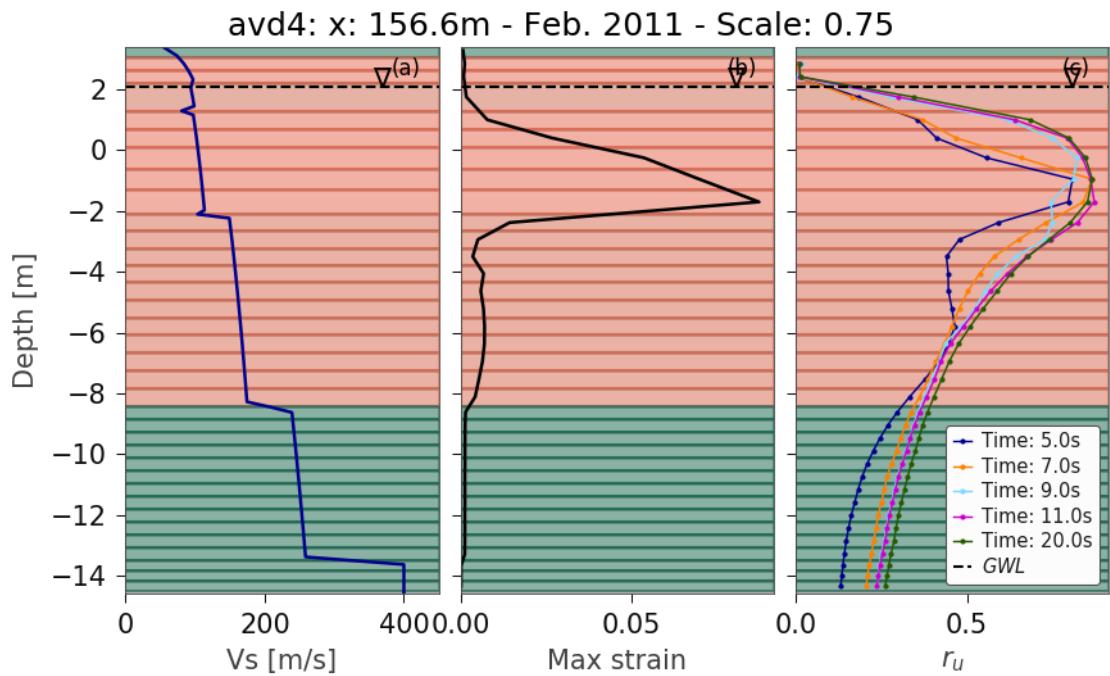


Figure 23: Profile performance (2D) avd4 - Feb. 2011 [scale: 0.75] at free-field

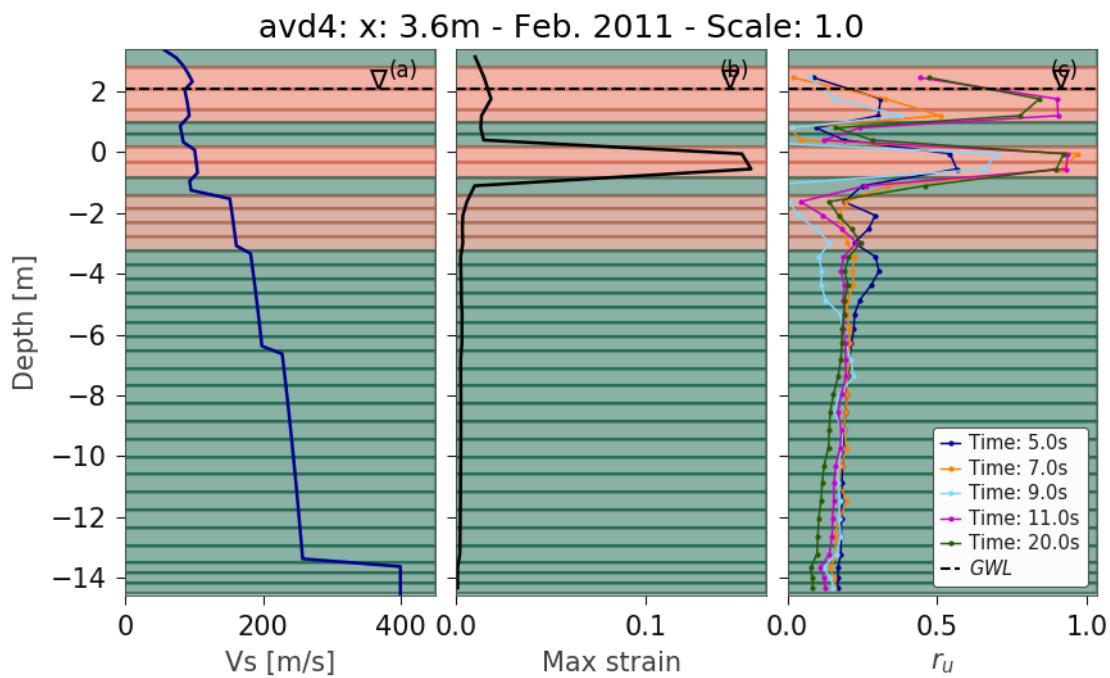


Figure 24: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at free-face

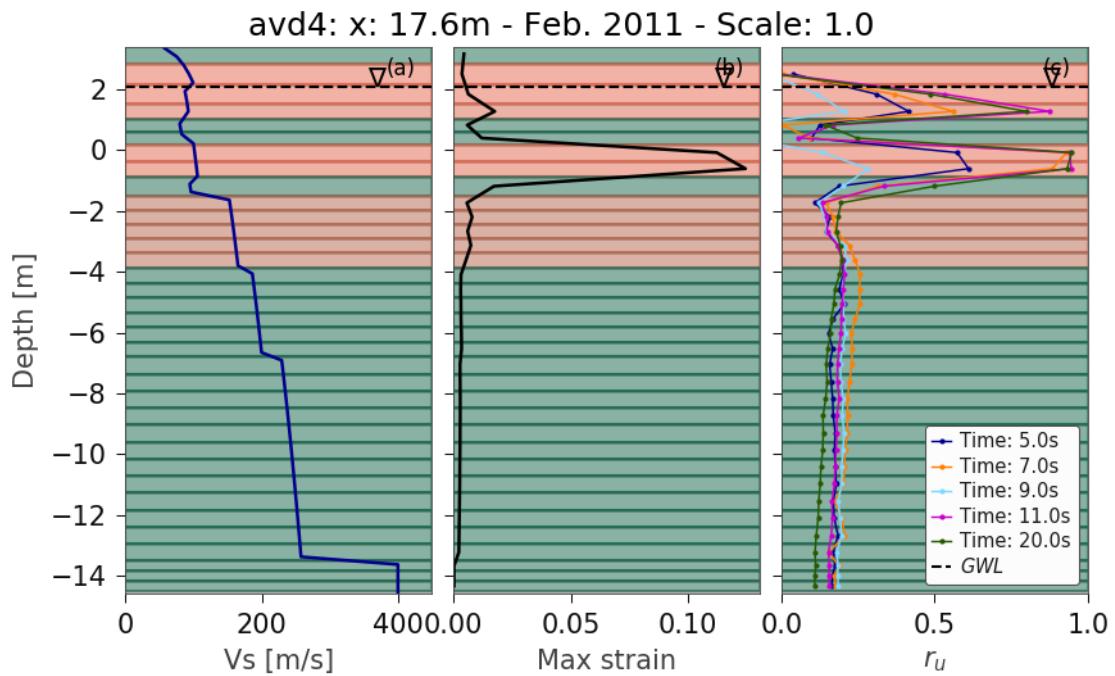


Figure 25: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at  $x = 5 \cdot H_{face}$

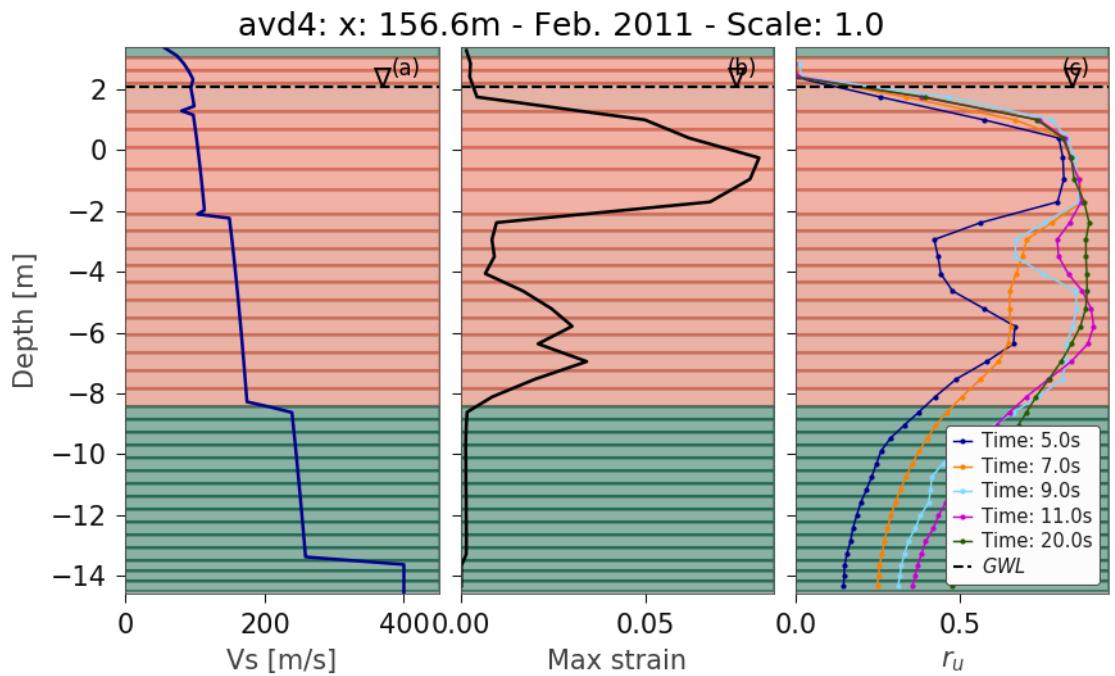


Figure 26: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.0] at free-field

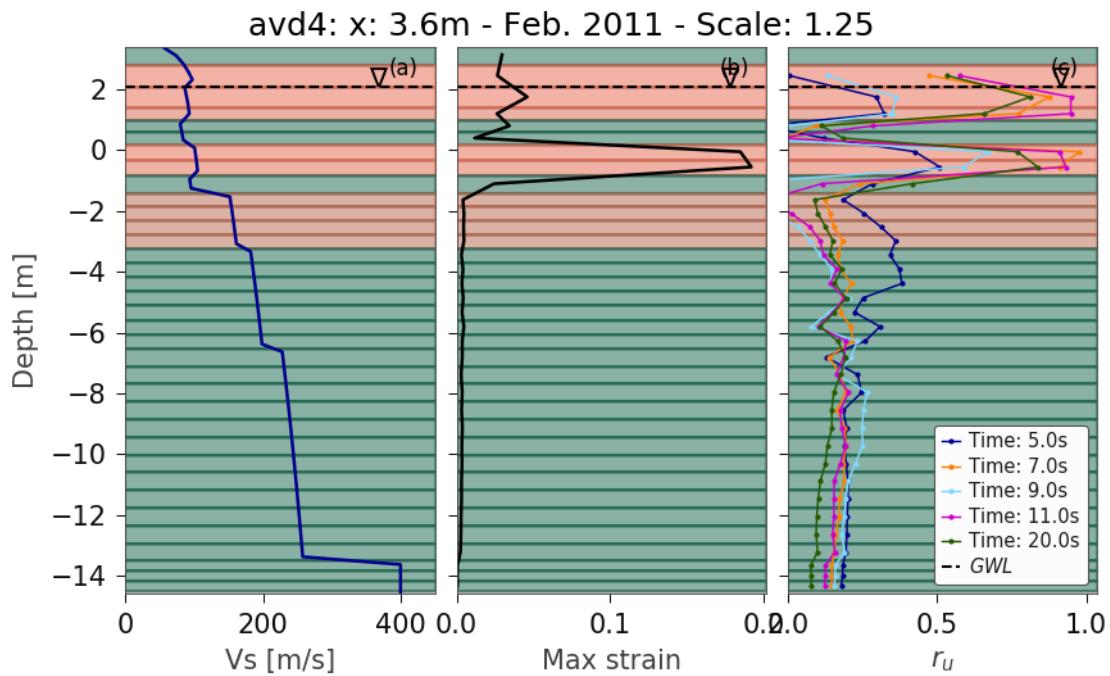


Figure 27: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at free-face

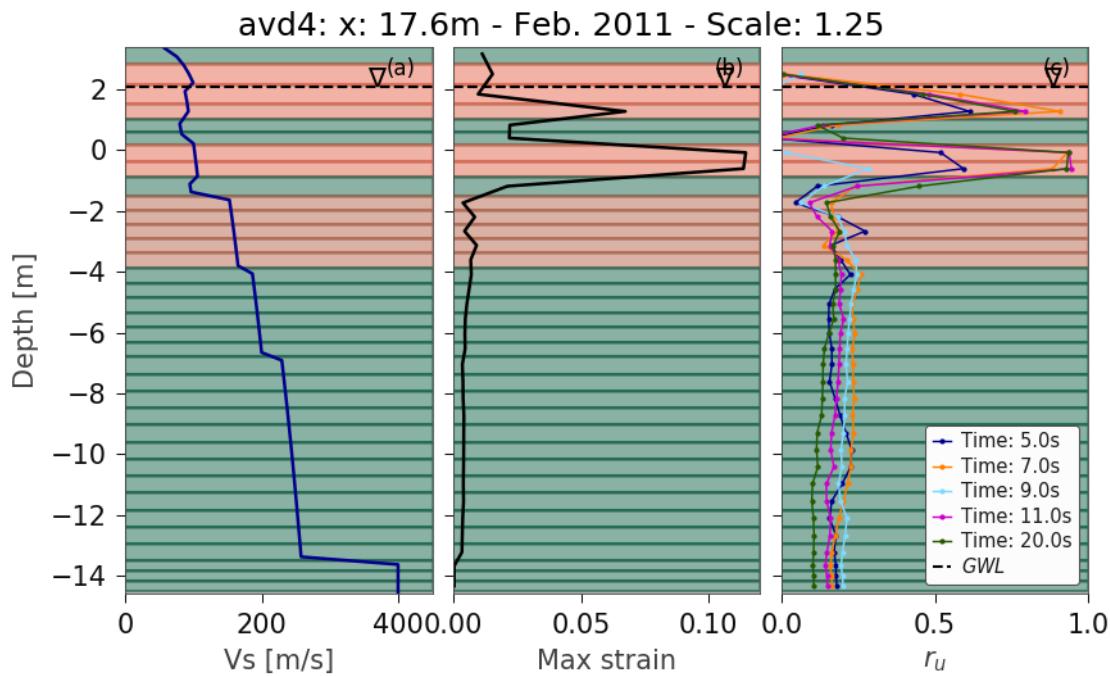


Figure 28: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at  $x = 5 \cdot H_{face}$

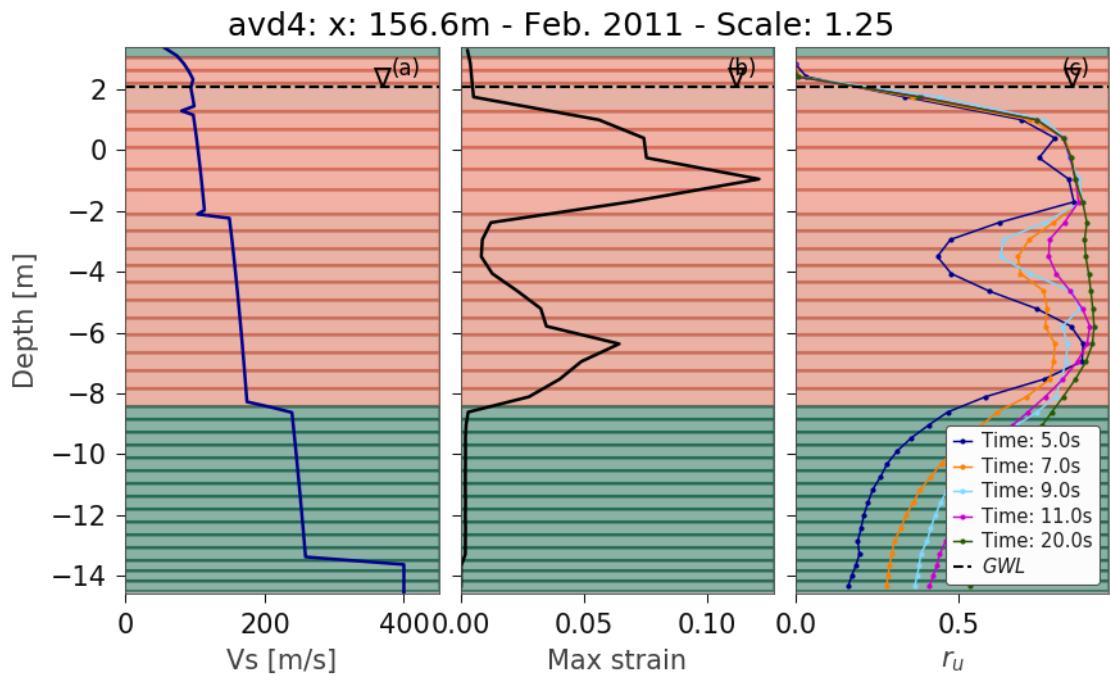


Figure 29: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.25] at free-field

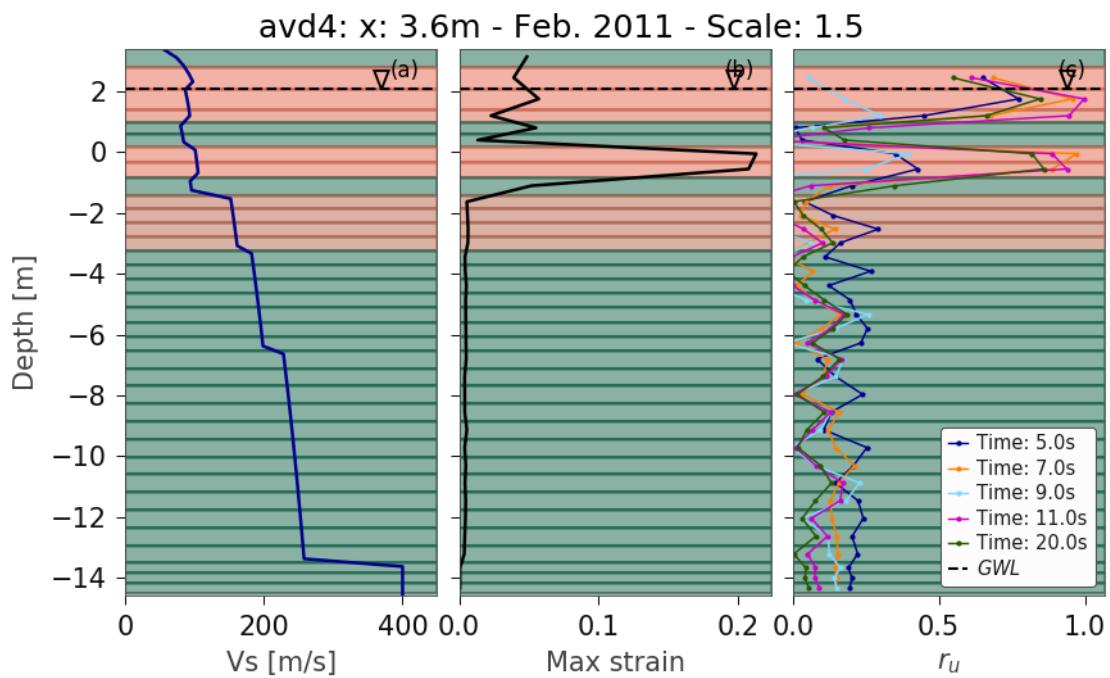


Figure 30: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at free-face

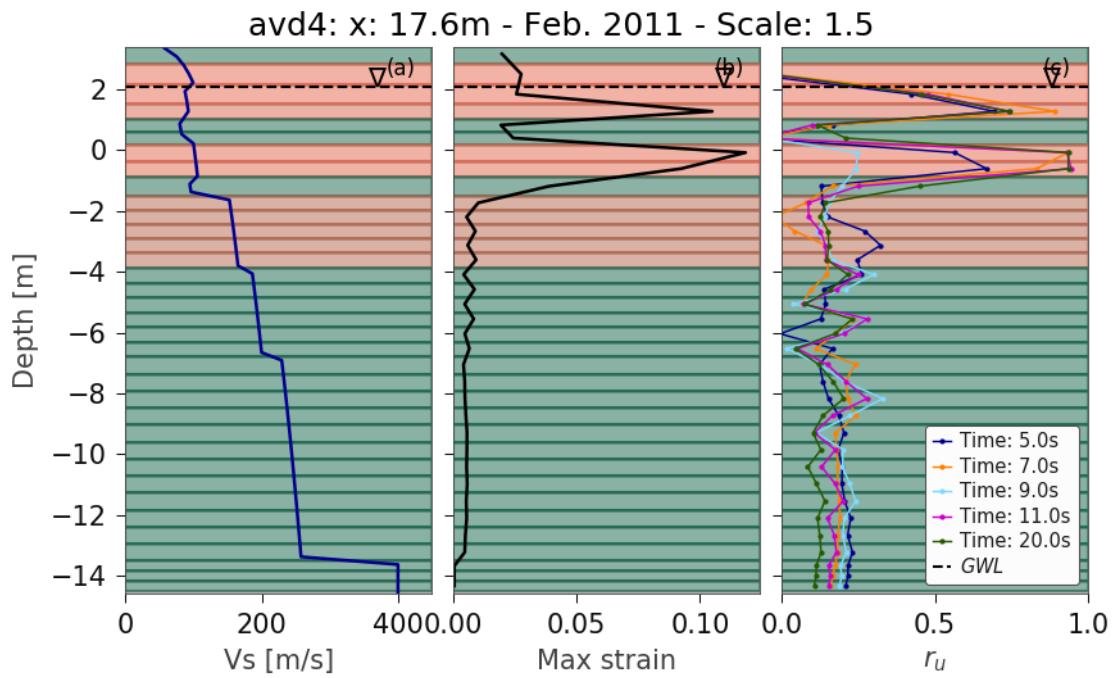


Figure 31: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at  $x = 5 \cdot H_{face}$

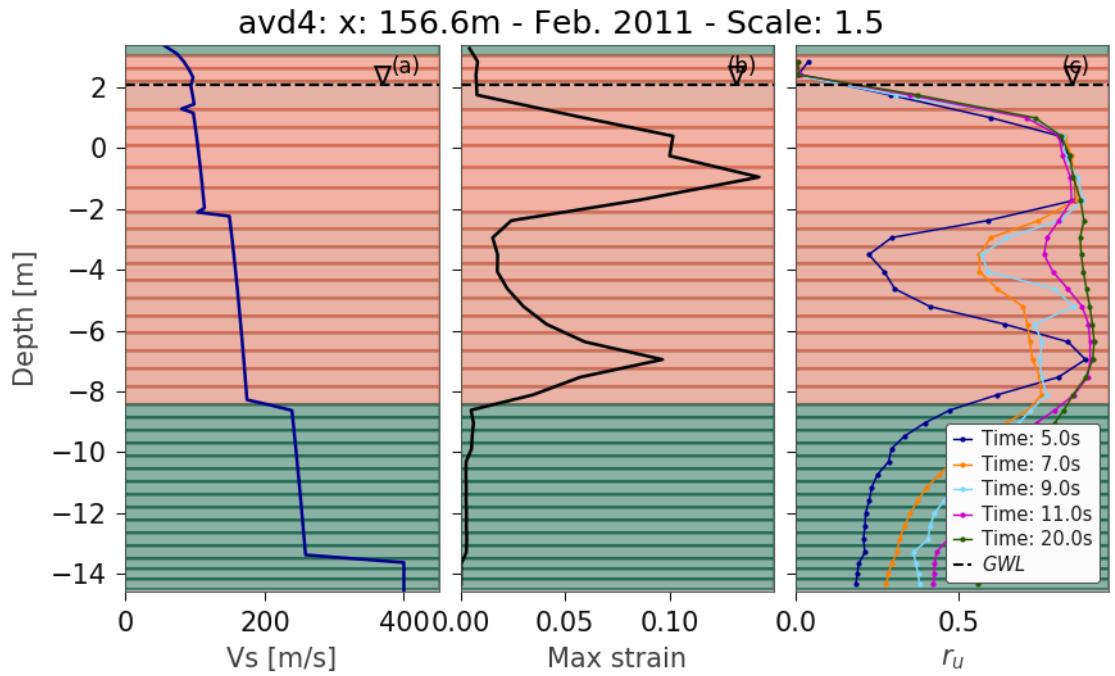


Figure 32: Profile performance (2D) avd4 - Feb. 2011 [scale: 1.5] at free-field

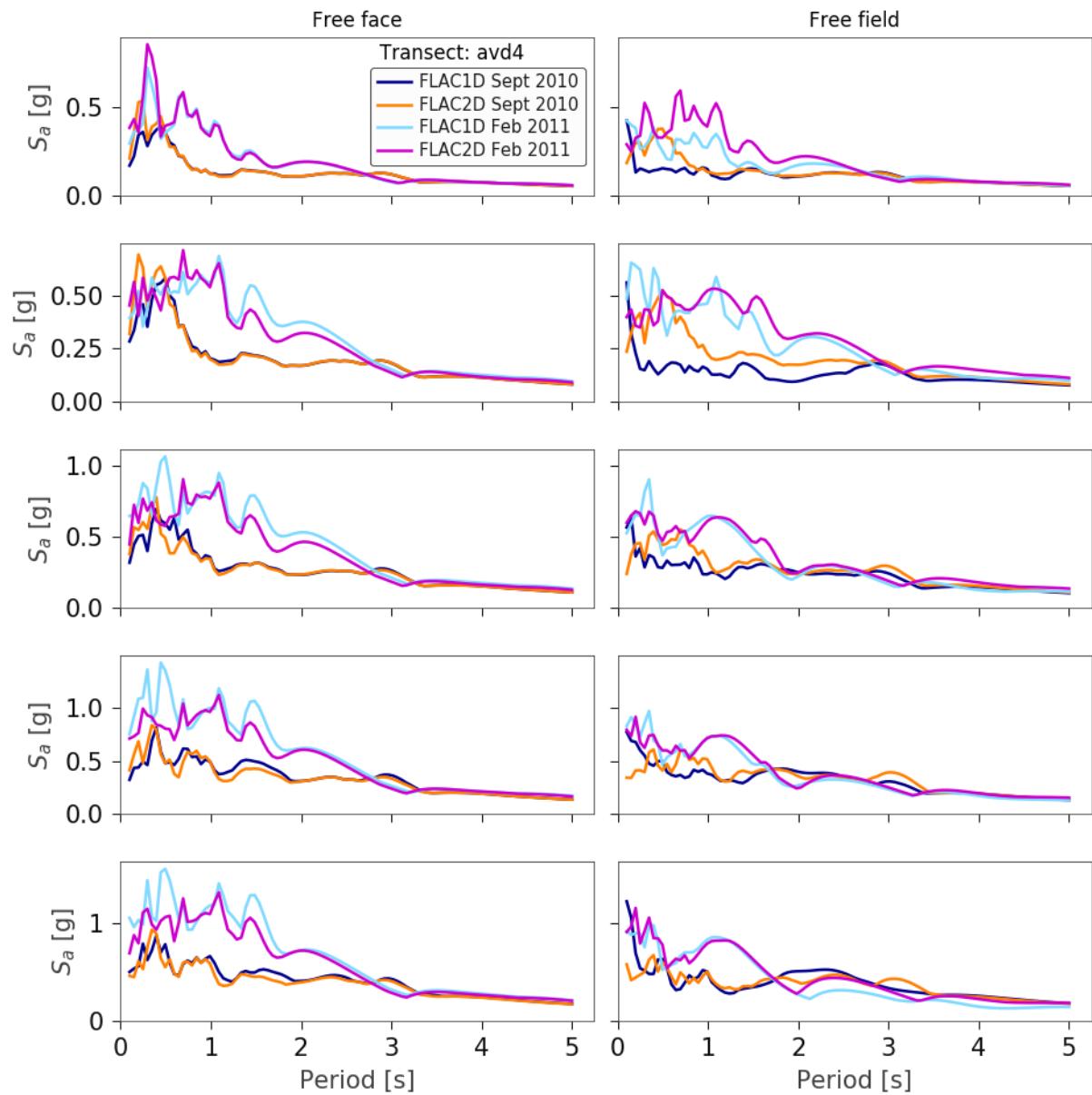


Figure 33: Comparison of surface motions: avd4

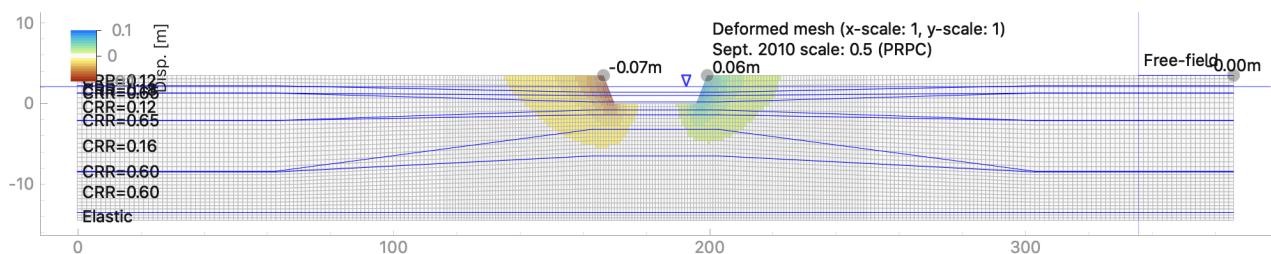


Figure 34: Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 0.5]

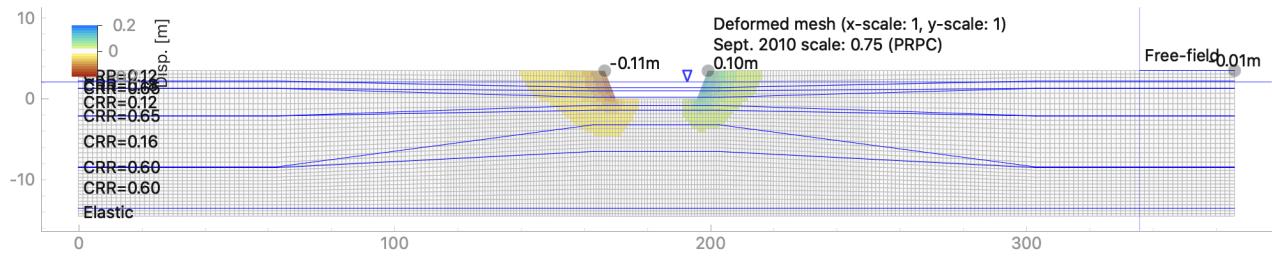


Figure 35: Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 0.75]

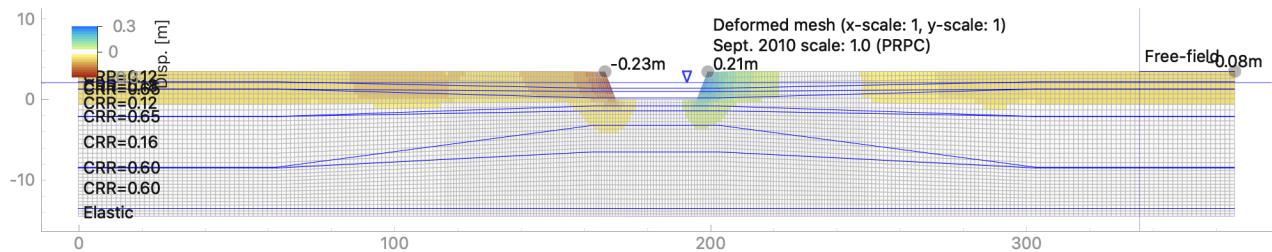


Figure 36: Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.0]

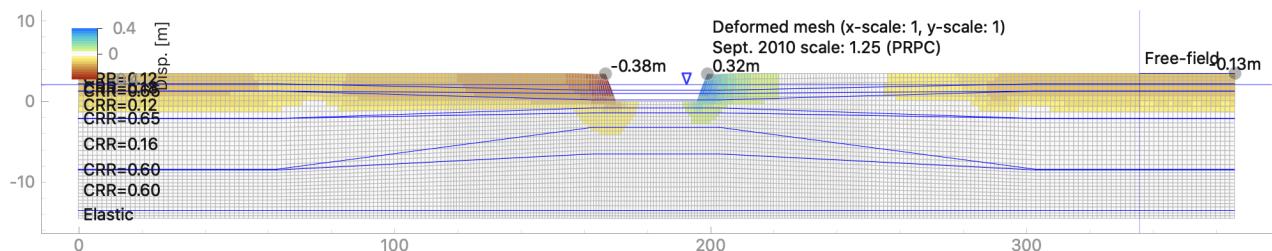


Figure 37: Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.25]

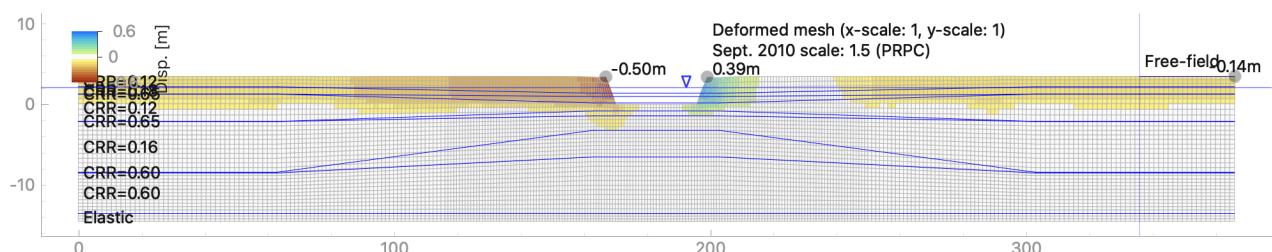


Figure 38: Horizontal displacement [mesh]: avd4 - Sept. 2010 [scale: 1.5]

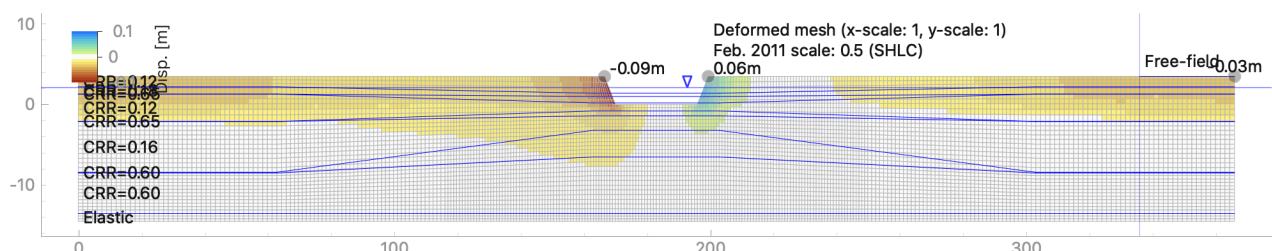


Figure 39: Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 0.5]

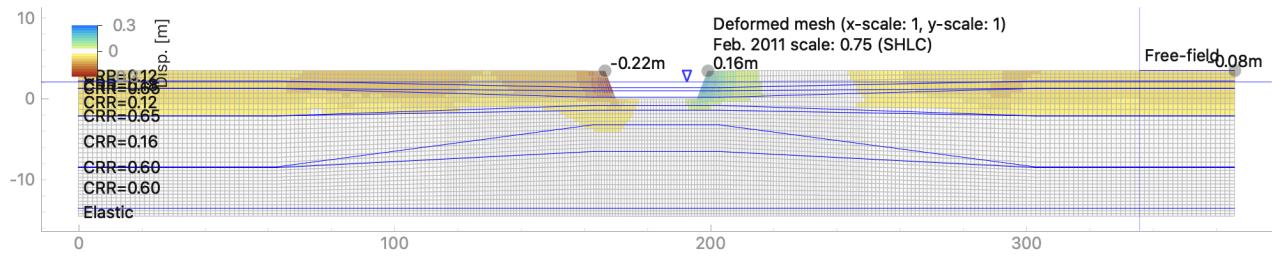


Figure 40: Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 0.75]

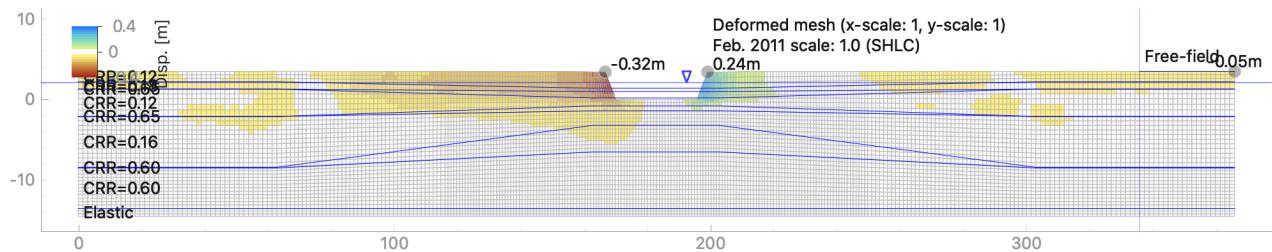


Figure 41: Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.0]

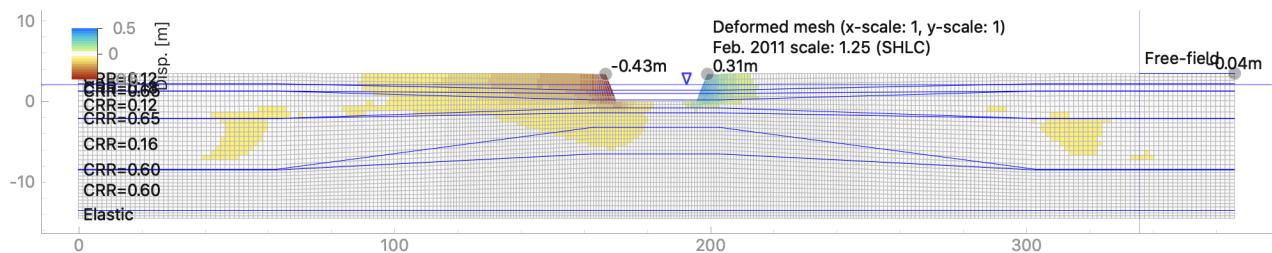


Figure 42: Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.25]

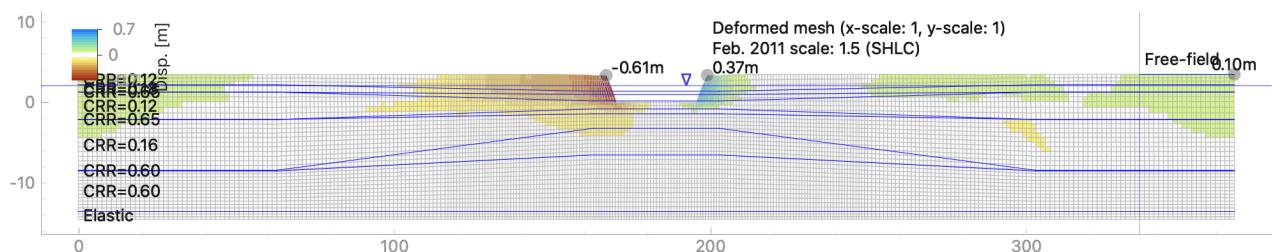


Figure 43: Horizontal displacement [mesh]: avd4 - Feb. 2011 [scale: 1.5]

### avd4 - Sept. 2010 (PRPC)

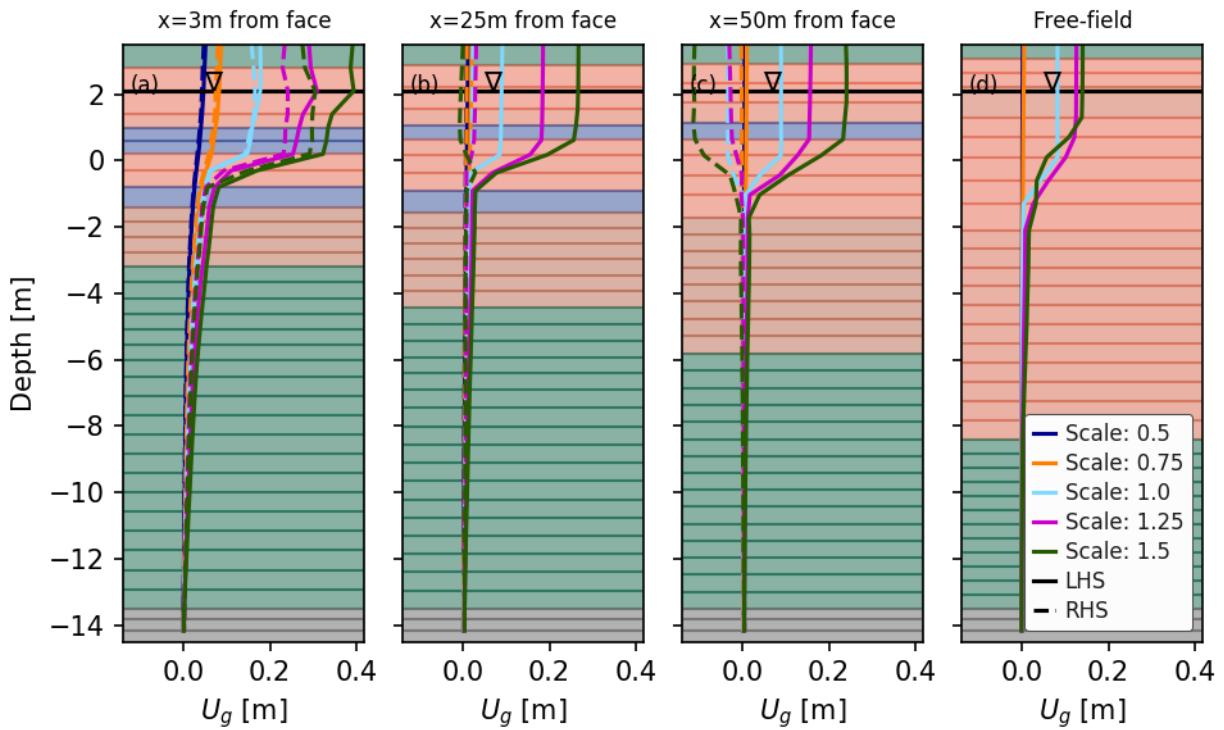


Figure 44: Lateral displacement vs depth: avd4 - Sept. 2010

### avd4 - Feb. 2011 (SHLC)

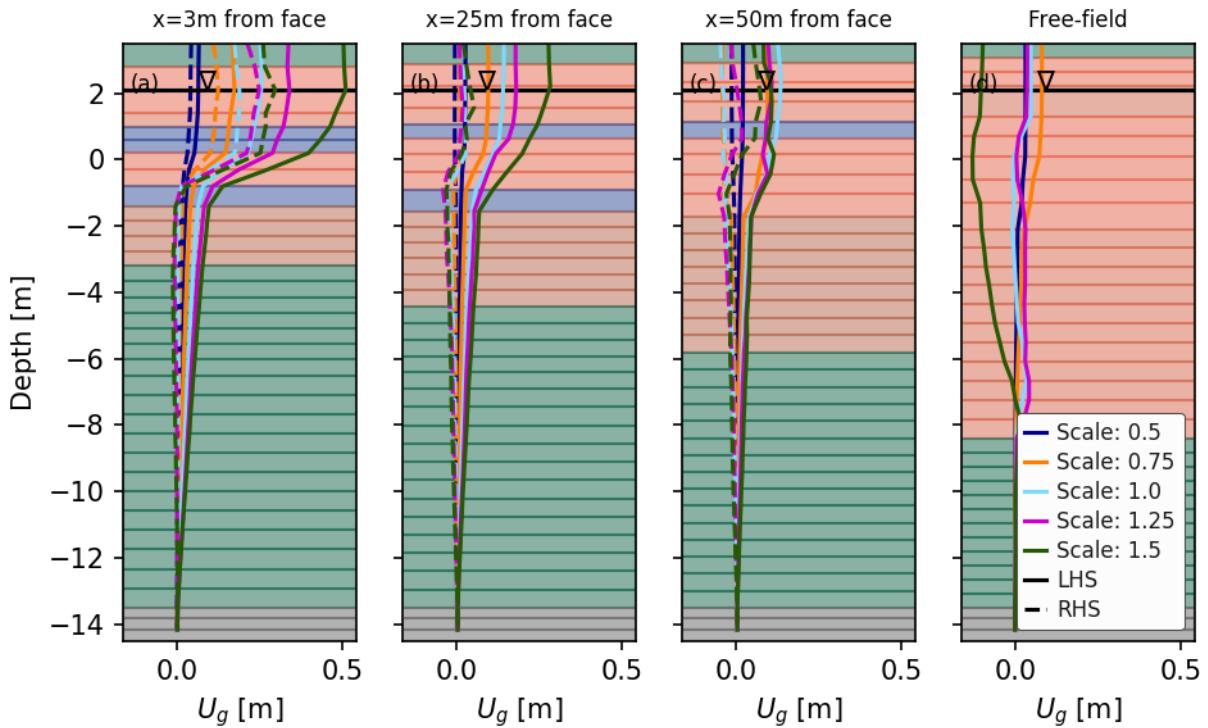


Figure 45: Lateral displacement vs depth: avd4 - Feb. 2011

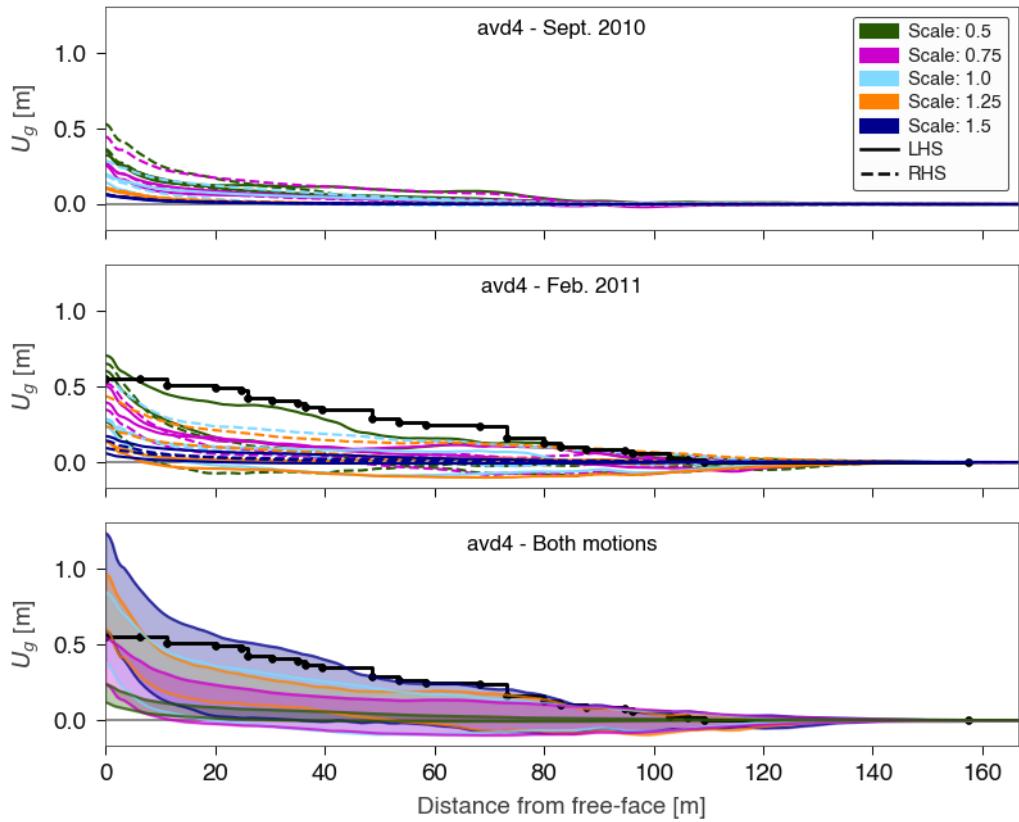


Figure 46: Lateral displacement vs distance: avd4

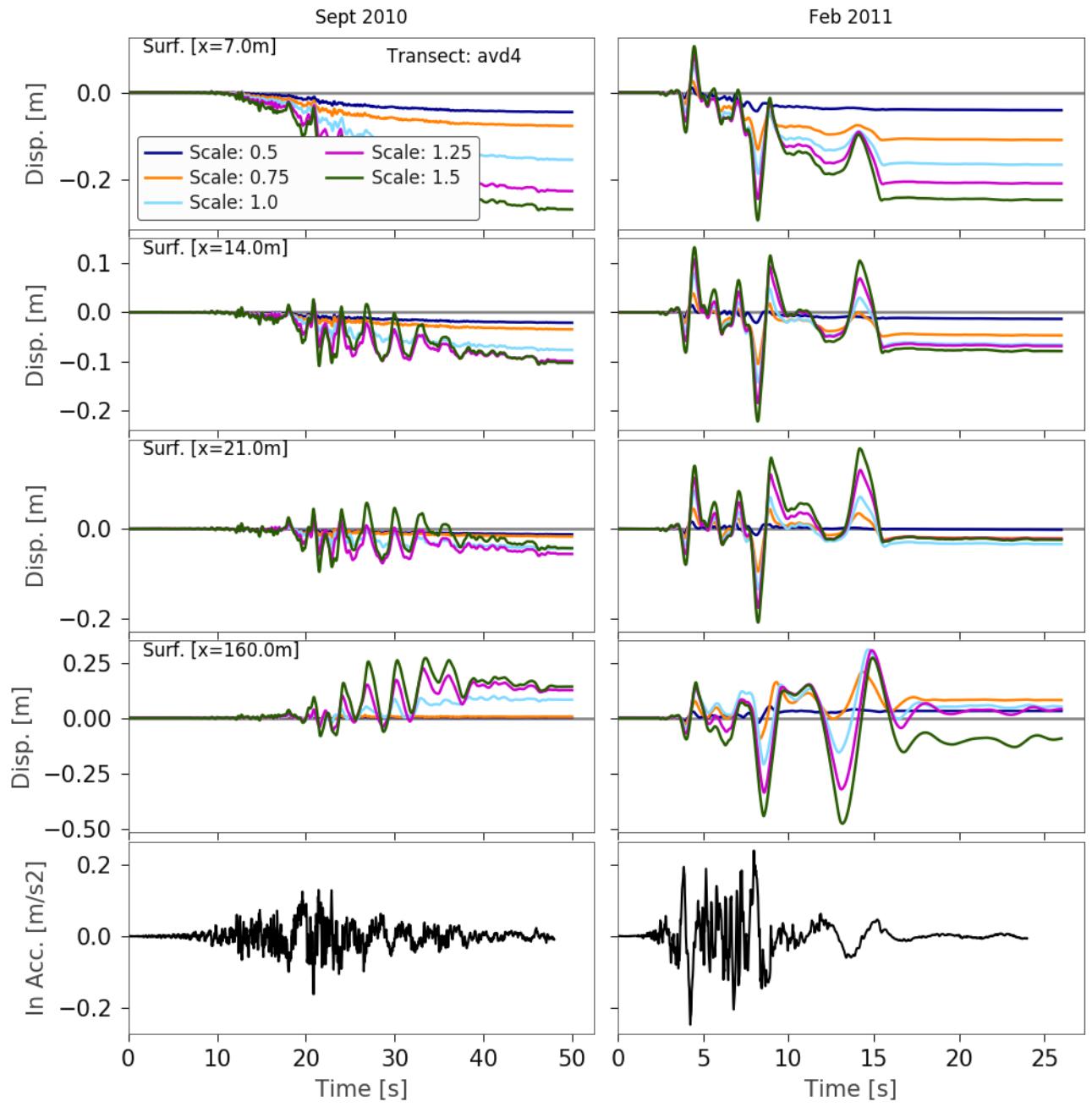


Figure 47: Lateral displacement vs time: avd4