WakeBench flow cases

Initial cases - March 2012

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Wakebench: WG1
Flow over flat terrain

1. Monin-Obukhov Quasy-steady surface layer profiles at different stabilities	1.1.1 EllipSys-RANS 1.1.3 SCADIS	T. Koblitz / A. Bechmann A.Sogachev	nns
2. Leipzig Quasy-steady ABL in neutral conditions	1.2.1 EllipSys-RANS 1.2.2 SCADIS	T. Koblitz / A. Bechmann A.Sogachev	

Join the Webinar on March 12
Title: *Wakebench: WG1-Flat_ABL*
Date: Monday, March 12, 2012
Time: 3:00 PM - 4:00 PM CET

Wakebench: WG2
Flow over hills in wind tunnel

2.1 POSTECH 2D hills; Isolated 2D hills with and without flow separation	2.1.1 Fuga-hill 2.1.2 WASP	S.Ott Olra	SC: ab
2.2 POSTECH 2D hills; Hill-hill interaction using the same hill geometries of previous	2.2.1 Fuga-hill 2.2.2 WASP	S.Ott olra	

Webinar on March 21
Title:*Wakebench: WG2-Hills_WindTunnel*
Date: Wednesday, March 21, 2012
Time:3:00 PM - 4:00 PM CET

Wakebench: WG3
Flow over hills in the field

3.1 Askervein 210. Isolated hill, historical reference	3.1.1 EllipSys-RANS 3.1.2 SCADIS 3.1.3 Fuga-HILL	A.Bechmann A Sogachev S.Ott	SC: nns
3.2 Askervein different wind directions	3.2.1 EllipSys-RANS 3.2.2 SCADIS 3.2.3 Fuga-HILL 3.2.4 Ellipsys-LES 3.2.5 WASP	A. Bechmann A.Sogachev A. Bechmann Dalibor Olra	
3.3 Bolund Revisit blind test simulations, now calibration is allowed	3.3.1 EllipSys-RANS 3.3.2 Fuga-HILL	A.Bechmann S.Ott	

Webinar on March 15
Title: *Wakebench: WG3-Hills_Field*
Date: Thursday, March 15, 2012
Time: 3:00 PM - 4:00 PM CET

Wakebench: WG4
Flow in and above forest canopies

4.1 CSIRO homogeneous forest 1D profile in and above modeled forest canopy.	4.1.1EllipSys-RANS	L-EBoudreault/ Bechmann	SC: anso
4.2 CSIRO 2D Furry hill Isolated 2D hill covered by modeled forest canopy.	4.2.1EllipSys-RANS	L-E. Boudreault/ Bechmann	
4.3 Bradley's roughness change Smooth <--> Rough transition in the field.			

Webinar on March 21
Title:_Wakebench: WG4-Forest_
Date: Wednesday, March 21, 2012
Time:5:00 PM - 6:00 PM CET

Wakebench: WG5
Flow over Mountains

Webinar on March 15

Agenda:

- Introduction by Operating Agent, review of test case matrix, proposed strategy
- Discussion animated with technical presentations (To be proposed, 5-10min, Focus on model evaluation)
- Schedule benchmarks: set priorities, dates and define roles (Test Case Manager, Benchmark Manager, 2 Reviewers, participants)
- New test cases
- List of actions

Title: *Wakebench: WG5-Mountains*
Date: Thursday, March 15, 2012
Time: 4:00 PM - 5:00 PM CET

Wakebench: WG6
WT Wakes. Theoretical verification

6.1 Theory Self-similar turbulent circular wake (possibly with swirl)	6.1.1EllipSysAL/AD/FR 6.1.2DWM	niet, pire, frza, gula,shen	SC: jns Coordination: math
6.2 Theory Infinite wind farm	6.2.1InfiniPark 6.2.1Ellipsys-LES	aldi sja	

Webinar on March 20
Title:*Wakebench: WG6-Wakes_Theory*
Date: Tuesday, March 20, 2012
Time:3:00 PM - 4:00 PM CET

Wakebench: WG7
WT Wakes. Wind tunnel experiments

7.1 University of Minnesota Single or multiple turbines with different stability	7.1.1FUGA 7.1.2DWM 7.1.3EllipSys-AL/AD 7.1.4InfiniPark	sqot, tjul, niet,pire, rm,shen aldi	SC:jns Coordination: math

Webinar on March 21
Title:*Wakebench: WG7-Wakes_WindTunnel*
Date: Wednesday, March 21, 2012
Time:4:00 PM - 5:00 PM CET

Wakebench: WG8
Small wind farms / Individual WT

8.1 Sexbierum Single WT in flat terrain and neutral atmosphere	8.1.1WASP, 8.1.2InfiniPark, 8.1.3FUGA, 8.1.4DWM, 8.1.5RDWM 8.1.6EllipSys-AL/AD 8.1.7SCADIS	olra, aldi, sqot, tjul, pire niet,pire,rm,shen A.Sogachev	SC:jns Coordination: math

Webinar on March 22
Title: *Wakebench: WG8-Wakes_SmallWindFarms*
Date: Thursday, March 22, 2012
Time: 3:00 PM - 4:00 PM CET

Wakebench: WG9
Large wind farms

9.1 Lillgrund Offshore, 48x2.3MW, 3.3Dx4.3D, gap in the middle	9.1.1FUGA, 9.1.2WASP, 9.1.3InfiniPark, 9.1.4DWM, 9.1.5RDWM, 9.1.6EllipSys-AL/AD	sqot, olra, aldi, tjul pire niet,pire, rm,shen	SC:jns,gula Coordination: math

Webinar on March 22
Title:*Wakebench: WG9-Wakes_LargeWindFarms*
Date: Thursday, March 22, 2012
Time:4:00 PM - 5:00 PM CET