



Name	Mick van der Wegen
Year of birth	1971
Nationality	Dutch
Marital Status	Married, 3 children
Present position	Senior Researcher Coastal Engineering
Years with firm	1996 – present

EDUCATION

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| 2005-2010 | - PhD dissertation (part time) at UNESCO-IHE and Delft University of Technology
'Modeling morphodynamic evolution in alluvial estuaries' under guidance of prof. Dano Roelvink. |
| 1990-1996 | - MSc degree at Delft University of Technology, department of Civil Engineering, section of Fluid Mechanics. Thesis : 'Turbulent processes in a shallow water mixing layer', under guidance of prof. J Battjes. |
| 1984-1990 | - Stedelijk Gymnasium Johan van Oldenbarnevelt, Amersfoort, the Netherlands |
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EMPLOYMENT RECORD

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|---------------|---|
| 2012- to date | - Senior Researcher at Deltares (0.3 FTE)
Senior Researcher at UNESCO-IHE (0.6 FTE) |
| 2010 - 2012 | - Visiting researcher at Deltares (1 day/week) within the framework of the CASCade II project. Closely involved in development and testing of DFlowFM software. |
| 2008 | - Visiting researcher at USGS, Santa Cruz (3 months) within the framework of the CASCade project. |
| 2008 - 2009 | - Visiting researcher RIKZ (1 day/week). |
| 2005 - 2010 | - Part-time PhD candidate on process-based, long-term morphodynamics in estuaries |
| 1997 - date | - Junior and Senior Lecturer Coastal Engineering and ICZM, Department of Water Science and Engineering, UNESCO-IHE Delft, The Netherlands. |
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KEY QUALIFICATIONS

Mick van der Wegen's major field of expertise is related to estuarine morphodynamics and integrated coastal zone management. After his TU Delft MSc degree in Civil Engineering, fluid mechanics, in 1996 he has worked at UNESCO-IHE. He obtained his PhD degree (TU Delft) on estuarine morphodynamics in 2010. He is appointed 0.6 FTE at UNESCO-IHE (since 1997) and 0.3 FTE at Deltares (since 2013).



Research interests include (long-term) estuarine morphodynamics, density currents and salt intrusion, numerical (hydrodynamic and morphodynamic) modeling (Delft3D). Key research efforts focus on decadal to millennial timescale morphodynamic predictions, conditions for morphodynamic equilibrium, channel-shoal interactions and nourishment strategies, always seeking for opportunities to explore new paths beyond the limit of state-of-the-art knowledge.

Education efforts have included teaching, guidance of MSc students and PhD candidates as well as programme coordination including accreditation and quality assurance programs. Other activities include (acquisition of) research projects, advisory work and capacity building projects within an international context and often in close co-operation with institutes like TU Delft, Deltares and USGS. Beside he carries out regular review work for international, peer-reviewed journals.

MAIN DISCIPLINE / SPECIALISATION

Coastal Engineering
Estuarine Morphodynamic Modeling
Integrated Coastal Zone Management

MEMBERSHIP and REVIEW

- Member of AGU
- Outstanding Reviewer *Estuaries and Coast* 2008
- Reviewer averages 6 reviews/yr over the past 3 years. Journal (nr of reviews, 2011 impact factor) Sedimentary Geology (1, 1.54), Coastal Engineering (2, 1.76), Ocean Dynamics (3, 1.77), Continental Shelf Research (1, 2.09), Estuaries and Coasts (1, 2.11), Geomorphology (3, 2.5), Marine Geology (4, 2.26), Journal of Geophysical Research (2, 3.3), Geophysical Research Letters (1, 4.0)

ACADEMIC PERFORMANCE since 2008 (update May 2014)

Researcher ID (www.researcherid.com)	C-6787-2009
Total Articles in Publication List:	14 (10 first author)
Journals (nr publications, 2011 impact factor):	PLoS One (1, 4.4) Journal of Geophysical Research (5, 3.03) Marine geology (1, 2.7) Marine Ecology Progress Series (1, 2.6) Geomorphology (1, 2.5) Est. and Coastal Shelf Science (1, 2.3) Ocean Dynamics (1, 1.8) Coastal Engineering (3, 1.8)
Sum of the Times Cited (Res.ID, Google scholar):	158, 315
Average Citations per Article (Res.ID, Google scholar):	14.4, 22.5
h-index (Res.ID, Google Scholar):	7, 7

**Postdoc, PhD and MSc guidance and involvement**

2013-date	<i>Zheng Zhou</i> - PhD candidate at University of Cantabria, Spain
2012-date	<i>Roseanne Martyr</i> - Post doc in CASCADE II project Modeling hydrodynamics and phytoplankton dynamics in San Francisco Bay-Delta system with D-Flow FM.
2011-date	<i>Fernanda Achete</i> - PhD candidate in CASCADE II project Modeling hydrodynamics , sediment transport and morphodynamics in San Francisco Bay-Delta system with D-Flow FM.
2010-date	<i>Gerard Dam</i> - Morphological modeling of the Western Scheldt
2009-date	<i>Guo Leicheng</i> - Morphodynamic modeling of the river- and tide- dominated Yangtze Estuary, China: processes and mechanisms
2007-2012	<i>Ali Dastgheib</i> - Morphodynamic modeling of the Waddenzee (involved)
2006-2010	<i>Pushpa Kumara Dissanayake</i> - Morphodynamic modeling of Waddenzee inlets (involved)
2004-2008	<i>Nguyen Anh Duc</i> - Salt intrusion , tides and mixing in multi-channel estuaries (involved)
1998- date	Guidance of on average 4 MSc candidates/year on different topics related to coastal engineering and coastal morphodynamics

GUESTLECTURER

2005-date	Twente University, the Netherlands: Lecture series Integrated Water Resources Management, focus on ICZM
2005-2008	University of Amsterdam, the Netherlands: Lecture series People and the Sea, focus on ICZM

LANGUAGES

	<i>Speak</i>	<i>Read</i>	<i>Write</i>
<i>English</i>	Excellent	Excellent	Excellent
<i>French</i>	Moderate	Good	Moderate
<i>German</i>	Good	Good	Good
<i>Spanish</i>	Moderate	Good	Moderate
<i>Dutch</i>	Mother tongue		

EXPERIENCE RECORD**PROJECTS - Research (acquired)**

2011-date	USA: CAsCade II <i>interdisciplinary research project financed by USGS and Calfed (1.8 MUSD):</i> Development of San Francisco Bay and Delta model based on D-Flow FM; coupling with Delwaq functionality. Study of sediment transports through Delta and Bay and morphodynamic hindcast of this system. 1PhD 2MSc, http://cascade.wr.usgs.gov/ , <a 734="" 912="" 931="" 948"="" data-label="Page-Footer" href="http://www.unesco-ihe.org/The-San-</td> </tr> </table> </div> <div data-bbox=">Update : 1 August 2011
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- [Francisco-Bay-Delta-model](#) , USGS, Deltares, UNESCO-IHE.
- 2009-date **USA:** Corte Madera (40 KUSD): Modeling salt marsh development in San Francisco Estuary, USGS, BCDC.
- 2009-date **USA:** Calibration and validation of Bay-Delta model of San Francisco Estuary with Delft DFlow FM for USGS, 50 KUSD.
- 2007-2009 **USA:** CAsCade *interdisciplinary research project financed by USGS and Calfed:* Long -term morphological development of San Francisco Estuary, <http://cascade.wr.usgs.gov/>
- 2006 **The Netherlands:** *Organization NCK days*, two day conference of the Netherlands Centre for Coastal Research on the current Dutch coastal research
- 2004-2006 **The Netherlands:** *Re-evaluation of the Netherlands Long Term Climate targets* NRP-CC, NLTCT project; (VU-IVM, RIVM, WUR, KNMI, RIZA, RIKZ, ICIS) contribution specifically related to the coastal zone.
- 2000-2003 **The Netherlands:** member Delft Cluster research project on environmental flow requirements (ENFRAIM) in co-operation with WL|Delft Hydraulics, Alterra and TU Delft
- 1999 **Australia:** advisory service on salt intrusion in the Mary River, Darwin, Australia. The assessment was related to increasing salt intrusion in the Mary river threatening the fresh water wetlands in a nature reserve. Expert advice was given on the managerial and engineering measures to be taken to cope in a sustainable way with the processes going on.
- 1998 **The Netherlands:** Coast3D, research project including training on Delft3D, in co-operation with WL|Delft Hydraulics. The project aimed to investigate the morphology in front of the coast of Egmond, the Netherlands, using a 3D mathematical model.
- 1996 **The Netherlands:** Research on mixing processes in shallow water mixing layers in the laboratory for Fluid mechanics, Delft University of Technology. Work included laser-Doppler measurements in a flume and mathematical model development.

PROJECTS - Capacity building

- 2001-2008 **The Netherlands:** member steering committee and co-ordinator on behalf of IHE in the HWRU project. Project funded by Dutch Embassy in Hanoi aiming to develop a department of Coastal engineering at HWRU, Vietnam. Project includes curricula development and training and coaching of 20 HWRU staff, partly up to PhD level.
- 2001-2003 **Vietnam:** Conductance of courses ICZM in Hue, Hanoi, Vung Tau and Nam Dinh; within the framework of larger capacity building project funded by Dutch Embassy in Hanoi. Partners WL|Delft hydraulics, DHV, Arcadis, RIKZ. Course co-ordination and development. Lecture tasks specifically related to policy analysis and 3 day role play.



- 2001 **Vietnam:** groupwork guidance on an EIA of the Dong Nai River Catchment including field visit, Vietnam. Project sponsored by Dutch Embassy Hanoi. The groupwork aimed at a thorough EIA related to the Dong Nai Masterplan that was proposed in a JAICA. The EIA was carried out at IHE by a group of 15 Vietnamese students from different disciplines and Vietnamese institutes.
- 1998-2002 **The Netherlands:** project leader of different projects related to distance learning related to Integrated Coastal Zone Management (more information at www.coastlearn.org). Development of teaching material suitable for the internet in co-operation with RIKZ, WL|Delft Hydraulics, Resource Analysis, EUCC and different smaller Eastern European partners. Projects carried out under ICES, and EU programmes (ao LIFE, PIN MATRA, LEONARDO, TACIS).
- 1997-date **The Netherlands:** development of CRESS software in co-operation with RWS/DWW and TU Delft, more information at www.cress.nl. CRESS aims to provide the user with rules of thumb related to hydraulic engineering in combination with background information. Software development includes selection and critical review of routines including sensitivity analyses.

PUBLICATIONS - Peer reviewed journals

- submitted Achete, van der Wegen, Jaffe and Roelvink, Sediment dynamics in a tidal channel network
- In prep Dam, van der Wegen, Cleveringa and Roelvink, *Modeling the sand and mud balance in the Western Scheldt estuary*
- In prep Dam, Van der Wegen and Roelvink, *Skill score in long-term morphodynamic modeling: the Western Scheldt case study*
- submitted Guo, Van der Wegen and Roelvink, *Modulation of tidal asymmetry by river discharge and its morphodynamic implication in well-mixed estuary with mixed semidiurnal/diurnal tides'*
- submitted Guo, Van der Wegen and Roelvink *1D morphodynamic modeling of river flow in tidal basin*
- In prep Van der Wegen, Achete, Martyr, Reynolds, Roelvink, Knowles, *Salt intrusion in the San Francisco Bay Delta system*
- In prep. Van der Wegen, M., D.J. Walstra, J. Storms, M. Kleinhans, A. van der Spek, B. Jagers, J.A. Roelvink, *Long-term, process-based morphodynamic modeling: virtual reality or realistic analogue?*
- 2014 Van der Wegen, M. and B.E. Jaffe, *Processes governing decadal-scale depositional narrowing of the major tidal channel in San Pablo Bay, California, USA*, JGR-ES, DOI: 10.1002/2013JF002824
- 2013 Stewart, Luoma, Elrick, Carter and Van der Wegen, *Influence of estuarine processes on spatiotemporal variation of bioavailable selenium*, Mar. Ec. Progress Series, Vol. 492: 41–56, 2013, doi: 10.3354/meps10503
- 2013 Van der Wegen, M., and B. E. Jaffe, *Towards a probabilistic assessment of process-based, morphodynamic models*, Coastal Engineering 75, 52–63, doi: 10.1016/j.coastaleng.2013.01.009
- 2013 Van der Wegen, M., and B. E. Jaffe, *Does centennial morphodynamic evolution lead to higher channel efficiency in San Pablo Bay, California?*, Special issue of Marine Geology, doi: 10.1016/j.margeo.2013.06.020
- In prep. Van der Wegen, M., Z. B. Wang, I. Townend, H. H. G. Savenije, and J. A.



- 2013 Van der Wegen, M., *Numerical modeling of the impact of sea level rise on tidal basin morphodynamics*, J. Geophys. Res. Earth Surf., 118, doi:10.1002/jgrf.20034.
- 2012 Van der Wegen, M., Roelvink, J.A., *Reproduction of estuarine bathymetry by means of a process-based model: Western Scheldt case study, the Netherlands*, Geomorphology, doi: 10.1016/j.geomorph.2012.08.007
- 2011 Cloern, J., Knowles, N., Brown, L., Cayan, D., Dettinger, M., Morgan, T., Schoellhamer, D., Stacey, M., Van der Wegen, M., Wagner, R.W., Jassby, A., *Projected Evolution of California's San Francisco Bay-Delta-River System in a Century of Climate Change*, PLoS ONE 6(9): e24465., doi:10.1371/journal.pone.0024465
- 2011 Van der Wegen, M., B. E. Jaffe, and J. A. Roelvink, *Process-based, morphodynamic hindcast of decadal deposition patterns in San Pablo Bay, California, 1856–1887*, J. Geophys. Res., 116, F02008, doi:10.1029/2009JF001614.
- 2010 Van der Wegen, M., A. Dastgheib, B.E. Jaffe and J. A. Roelvink, *Bed composition generation for morphodynamic modeling: case study of San Pablo Bay in California, USA*. Ocean Dynamics, InterCoh 2009 Special issue, doi: 10.1007/s10236-010-0314-2
- 2010 Van der Wegen, M., A. Dastgheib and J. A. Roelvink, *Morphodynamic modeling of tidal channel evolution in comparison to empirical PA relationship*, Coastal Eng. 57 (2010) 827–837, doi:10.1016/j.coastaleng.2010.04.003
- 2009 Dissanayake, M. van der Wegen and J.A. Roelvink (2009), *Modelled channel patterns in a schematized tidal inlet*, Coastal Engineering, doi: 10.1016/j.coastaleng.2009.08.008.
- 2008 Van der Wegen, M., Z. B. Wang, H. H. G. Savenije, and J. A. Roelvink (2008), *Long-term morphodynamic evolution and energy dissipation in a coastal plain, tidal embayment*, J. Geophys. Res., 113, F03001, doi:10.1029/2007JF000898.
- 2008 Nguyen Anh Duc, Mick van der Wegen, Dano Roelvink and Huub Savenije, *New analytical equation determining the dispersion coefficient in estuaries with a distinct ebb-flood channel system*, Estuarine and Coastal Shelf Science, doi 10.1016/j.ecss.2008.03.002.
- 2008 Van der Wegen, M., and J. A. Roelvink, *Long-term morphodynamic evolution of a tidal embayment using a two-dimensional, process-based model*, J. Geophys. Res., 113, C03016, doi:10.1029/2006JC003983.

PUBLICATIONS - Conference proceedings

- 2014 Zeng Zhou, Van der Wegen, Jagers, Coco, *The role of self-weight consolidation on estuarine morphodynamics*, EGU
- 2013 Leicheng Guo, Mick van der Wegen, Dano Roelvink, Qing He, *Tidal asymmetry, residual sediment transport and long-term morphodynamics in the river estuary*, AGU Fall, San Francisco
- 2013 Han Yu-fang, Mick van der Wegen, Dano Roelvink and Guo Lei-cheng, *Numerical Modelling Research on the Estuarine Turbidity Maximum*, ECSA, Shanghai
- 2013 Achete, van der Wegen, Roelvink, Jaffe, *Sediment Transport in a Complex Estuarine Channel Network*, CERF, San Diego



- 2013 Mick van der Wegen (invited) Skillscore in morphodynamic predictions over centuries, ICOASsT, Liverpool
- 2013 Martyr, Van der Wegen, Helly, Knowles, Lucas, *An application of a hydrodynamic-sediment transport model in the San Francisco-Bay Delta: insights into the impact of rapid sea level rise on regional hydrodynamic and salinity fields*, CERF, San Diego
- 2013 Dam, van der Wegen, Cleveringa and Roelvink, *Effect of mud on the sediment balance of the Western Scheldt*, IntercoH, Florida
- 2013 Dam, Van der Wegen and Roelvink, *Long term performance of process based model in estuaries*, Coastal Dynamics, Bordeaux
- 2013 Van der Wegen, Jaffe, *Morphoprobabilistics - a way to assess uncertainty levels in process-based deterministic models*, NCK Den Haag
- 2013 Van der Wegen, Jaffe, Roelvink, *Why did the channel narrow over the past 150 years in San Pablo Bay, California? Morphodynamic modeling effort of decadal channel evolution*, RCEM, Santander
- 2013 Leicheng Guo, Mick van der Wegen, Dano Roelvink, Qing He, *Tidal channel morphodynamics in the Yangtze Estuary: a case of the South Branch*, Coastal Dynamics, Bordeaux
- 2013 Zeng Zhou Giovanni Coco Maitane Olabarrieta Mick van der Wegen, *On the Transition between Tide- and River-dominated Back-barrier Estuarine Environments*, IAHR Beijing
- 2012 Van der Wegen, M., B. E. Jaffe, A.J.F. van der Spek and J. A. Roelvink, *Levee development along tidal channels*, NCK-Days conf. Proc. Crossing borders in coastal research, doi 10.3990/2.165
- 2012 Fernanda Achete, Mick van der Wegen, Dave Schoellhamer, Bruce E. *Tracking sediments through the Bay-Delta system over a water year with a 2D process based model (DFlow FM)*. CALFED Bay Delta Science conference
- 2012 Fernanda Achete, Mick van der Wegen, Dave Schoellhamer, Bruce E. Jaffe, *Assessing Suspended Sediment Dynamics in the San Francisco Bay-Delta System: Coupling Landsat Satellite Imagery, in situ Data and a Numerical Model*, PECS 2012 poster
- 2012 Van der Wegen M., B.E. Jaffe and J. A. Roelvink, *Morphodynamic modeling of decadal channel evolution in San Pablo Bay, California: why does the channel narrow?*, PECS 2012 oral
- 2012 A. Dastgheib, M. van der Wegen, J. A. Roelvink, *Numerical modeling of long-term morphodynamic effects of closure dam construction on tidal basins* Presentation, ICCE 2012
- 2011 Guo Leicheng, He Qing, Dano Roelvink and Mick van der Wegen, *Morphodynamics of the tidal flats in the Yangtze Estuary*, InterCoh, 2011, Shanghai, China.
- 2011 Guo Leicheng, Dano Roelvink, Mick van der Wegen and He Qing, *Modeling the long-term morphodynamic behavior of the Yangtze Estuary*, IAHR conference RCEM, 2011, Beijing, China.
- 2011 Patrick L. Barnard, Noah Knowles, David Schoellhamer, Neil Ganju, Bruce Jaffe and Mick van der Wegen, *Modeling the physical impacts of climate change in San Francisco Bay*, State of the San Francisco Estuary conference 2011, Oakland, CA, USA



- 2011 Walstra D.J.R., J.A. Roelvink, J.E.A. Storms, N. Geleynse, T.T. Tung, M. Van der Wegen, A. Dastgheib, D.M.P.K. Dissanayake and R. Ranasinghe, *Process-based long-term morphological modeling: the state of the art and the way ahead*, Proc. "Les littoraux à l'heure du changement climatique" in the journal "les Indes Savantes".
- 2011 Madelon Burgmeijer, Henk Jan Verhagen, Mick van der Wegen, *Training of coastal engineers to work in a non-engineering environment*, Proc. Coast. Management 2011, Belfast, UK.
- 2010 Van der Wegen M., B.E. Jaffe and J. A. Roelvink, *Investigating causes and consequences of 150 years of channel morphology evolution in San Pablo Bay, California*. Poster at AGU Fall.
- 2010 A. Dastgheib, M. van der Wegen, J. A. Roelvink, *Generating initial bed composition for long-term morphological modeling of tidal basins* Presentation ICCE 2010
- 2010 Jaffe, B.E., Van der Wegen, M., Elias, E., Roelvink, J. A., Foxgrover, A.C., and Fregoso, T., *Morphological Change in the San Francisco Estuary from the 1850s to 1980s: Application to Modeling Response to Climate Change and Sea Level Rise*, oral presentation at PECS 2010
- 2010 Van der Wegen, M. and J. A. Roelvink, *Reproduction of the Western Scheldt bathymetry by means of a process-based model*, oral presentation at PECS 2010
- 2010 Mick van der Wegen, *The morphodynamic impact of sea level rise on a tidal embayment*, oral presentation at EGU 2010
- 2009 Mick van der Wegen, Bruce Jaffe, Dano Roelvink, *Process-based, morphodynamic hindcast of decadal deposition patterns in San Pablo Bay, California, 1856-1887*, AGU fall meeting
- 2009 Mick van der Wegen, Zheng Bing Wang, Ian Townend, Huub Savenije and Dano Roelvink, *Long-term, morphodynamic modeling of equilibrium in an alluvial tidal basin using a process-based approach*, RCEM conference, Santa Fé, Argentina.
- 2009 Dastgheib A., Roelvink J.A., Van der Wegen M., *Effect Of Different Sediment Mixtures On The Long-Term Morphological Simulation Of Tidal Basins*, Proceedings of RCEM 2009, Santa Fe, Argentina. PP 913-918
- 2009 Komla W. Ofori, Mick van der Wegen, Dano Roelvink and John de Ronde, *Investigating the trends of import and export of sediment in the Western Scheldt estuary, the Netherlands - by a process-based model*, RCEM conference, Santa Fé, Argentina.
- 2009 Mick van der Wegen, Bruce Jaffe, Ali Dastgheib, Dano Roelvink, *Generation of initial bed composition for morphodynamic hindcasting of hydraulic mining deposits in San Pablo Bay, California*, oral presentation at INTERCOH, Rio de Janeiro, Brazil (submitted to special issue of Ocean Dynamics).
- 2009 Jaffe, Fregoso, Foxgrover, van der Wegen, Roelvink, Ganju, Dallas,



- Barnard, Hanes, Chin, Woodrow, McGann, Ingram, Higgins, Marvin-DiPasquale and Nielsen, *Morphological change of the San Francisco Estuary*, 90th Annual Meeting of the Pacific Division of the American Association for the Advancement of Science (AAAA), San Francisco, CA
- 2009 Mick van der Wegen, Zheng Bing Wang, Huub Savenije and Dano Roelvink, *Process-based, long-term morphodynamic modelling to investigate conditions for equilibrium estuarine geometry*, oral presentation, EGU, Vienna, Austria.
- 2008 Mick van der Wegen, Ali Dastgheib, Dano Roelvink, *Tidal inlet evolution along the Escoffier curve and empirical prism-cross section relationship using a 2D, process-based approach*, oral presentation at PECS, Liverpool, UK
- 2008 Ali Dastgheib, Mick van der Wegen, Dano Roelvink, *Long-term morphodynamic modeling*, oral presentation, ICCE, Hamburg, Germany.
- 2008 Mick van der Wegen, Bruce Jaffe, Dano Roelvink, *Decadal deposition in San Pablo Bay*, oral presentation at CalFed Science, Sacramento
- 2008 Mick van der Wegen, Zheng Bing Wang, Ian Townend, Huub Savenije and Dano Roelvink, *Long-term morphodynamic evolution in an embayment using a numerical, process-based approach*, poster presentation at EGU, Vienna, Austria
- 2008 Mick van der Wegen, Dano Roelvink, John de Ronde, Ad van der Spek, *Long-term morphodynamic evolution of the Western Scheldt estuary, the Netherlands, using a process based model*, oral presentation at COPEDEC VII conference, Dubai
- 2008 Nguyen Thi Phuong Thao, Mick van der Wegen, Dano Roelvink, *Morphological behaviour of Nam Trieu Estuary, Vietnam*, oral presentation at COPEDEC VII conference, Dubai
- 2008 Mick van der Wegen, Bruce Jaffe, Dano Roelvink, *Application of a 2D numerical model in the San Francisco estuary to estimate morphodynamic change from global warming and sea level rise*, poster presentation at Ocean Science, Orlando, USA
- 2007 Mick van der Wegen, Zheng Bing Wang, Huub Savenije and Dano Roelvink *Morphodynamic Estuarine Evolution Using a 2D Numerical, Process-based Approach*, oral presentation at AGU fall meeting San Francisco, USA
- 2007 Nguyen Anh Duc, Huub Savenije, Mick van der Wegen, Dano Roelvink, *Mixing in estuaries with a braided ebb-flood channel system: the Western Scheldt case*, proceedings ISEH 2007, Arizona State University/University of Arizona, Tempe, Arizona, USA
- 2007 Mick van der Wegen, Zheng Bing Wang, Huub Savenije and Dano Roelvink, *Estuarine evolution using a numerical, process-based approach* proceedings RCEM 2007, Twente UT, Enschede, the Netherlands
- 2007 Mick van der Wegen, Zheng Bing Wang, Huub Savenije and Dano



- 2006 Roelvink. *Energy dissipation in alluvial estuaries*, NCK days, IJmuiden, the Netherlands
- 2006 Nguyen Anh Duc, Huub Savenije, Mick van der Wegen, Effect of horizontal residual circulation on salinity distribution in estuaries, Geophysical Research Abstracts, Vol 8, 1259, EGU, Vienna, Austria
- 2006 Mick van der Wegen, Dang Quang Thanh and Dano Roelvink, *Bank erosion and morphodynamic evolution in alluvial estuaries using a process based 2D model*, proceedings ICHE conference 2006, Philadelphia, USA
- 2006 Dano Roelvink, Giles Lesser and Mick van der Wegen, *Morphological modelling of the wet-dry interface at various timescales*, proceedings ICHE conference 2006, Philadelphia, USA
- 2005 Habib Muhammetoglu, Mick van der Wegen, Irene Lucius, Carolina Pérez Valverde, *COASTLEARN, A multi-modular and multi-lingual distance training package on ICZM*, proceedings Medcoast 2005, Kusadasi, Turkey
- 2004 Nguyen Thi Phong Thao, D. Roelvink and M. van der Wegen, *Morphological behaviour of the Nam Trieu Estuary, Vietnam*, proceedings NCK, Yerseke
- 2004 Nghiem Tien Lam, H.J. Verhagen and M. van der Wegen, *Analytical solution to tidal inlet hydraulics*, Journal of Water Resources and Environmental Engineering, Hanoi Water Resources University, Vietnam
- 2003 Nghiem Tien Lam, H.J. Verhagen and M. van der Wegen, *Hydrodynamic modelling of tidal inlets in Hue, Vietnam*, COPEDEC VI conference, Colombo, Sri Lanka

PUBLICATIONS - Technical reports

- 2012 Van der Wegen and BE. Jaffe (USGS), *Modeling wind waves and morphodynamics near the Corte Madera salt marsh*, 2012, Technical report for San Francisco Bay Conservation and Development Commission (BCDC)
- 2006 J. Gupta (ed.), *Assessing dangerous climate impacts for the Netherlands*, Scientific Assessment and Policy Analysis for climate change (WAB), report 500102 007
- 2004 J. Gupta (ed.), *Re-evaluation of the Netherlands' long term climate targets*, IVM Institute for Environmental Studies, report E04/07
- 2003 M. Marchand (ed.), *Environmental Flow Requirements: an integrated approach for river and coastal zone management*, Delft Cluster report, Delft
- 2001 Tanczos, I. de Brouwer, J. Crosato, A. Dankers, N. van Duin, W. Herman, P.M.J. van Raaphorst, W. Stive, M.J.F. Talmon, A.M. Verbeek, H. de Vries, M.B. van der Wegen, M. Winterwerp, J.C. *Eco-morphodynamic processes in the Rhine-Meuse-Scheldt delta*



- and the Dutch Wadden Sea Delft Cluster report DC1-312-5
- 2000 Verhagen, H.J., and Van der Wegen, M., *Salt intrusion in the Mary River Wetlands, review of consultancy recommendations*, IHE, Delft

PUBLICATIONS - Books and other publications

- 2014 Roelvink, Ranasinghe, Walstra, Van der Wegen, *Modeling of coastal morphodynamic processes. The Coastal Engineering handbook*, Wiley
- 2010 Van der Wegen, M. *Modeling morphodynamic evolution in alluvial estuaries*, PhD dissertation.
- 1998 Verhagen, H.J., and Van der Wegen, M., *Coastal and River Engineering Support System manual*, in : *Dikes and Revetments, Design, Maintenance and Safety Assessment*, Balkema, Rotterdam
- 1996 Van der Wegen, *Research on a shallow water mixing layer*, MSc. Thesis, supervision by prof. J. Battjes, TU Delft

Education and internal UNESCO-IHE projects

- 2009-date **The Netherlands:** specialization co-ordination. Responsible for academic education programme in Coastal engineering and Port Development.
- 2004-date **The Netherlands:** co-ordination and teaching of yearly, 1 weeks short course on morphodynamic modeling with Delft3D, involvement of 50 students, co-operation with TU Delft, Deltares.
- 2001-2003 **The Netherlands:** secretary Personnel Council; regular meetings with Rectorate ao. on the transition from IHE to the UNESCO-IHE institute per June 2003, staff assessment procedures and flexible working conditions for staff.
- 2000-2003 **The Netherlands:** programme coordinator of courses on Coastal Engineering and Port Development, River Basin Development and Land and Water Development, involvement of 60 students, 12 IHE staff and 100 guest lecturers.
- 1997-date **The Netherlands:** Lectures given at IHE include, Basic Hydraulics, Density Currents and Salt Intrusion, Hydrodynamic and Morphodynamic Modeling (Delft3D), Coastal Morphology, Design of Closure Dams, Remote Sensing and Integrated Coastal Zone Management.
- 1997-date **The Netherlands:** co-ordination of yearly, 2 weeks Coastal Zone Management Seminar at IHE, including teaching activities, involvement of 50 students and 10 guest lecturers, co-operation with TU Delft, Deltares.
- 1997-date **The Netherlands:** different research projects, partly carried out in the framework of MSc studies; topics related to (amongst others)
- Breach growth in clay dikes, breach width development in time and sensitivity analysis on physical parameters like adaptation length and soil parameters.



- Effects of salinity gradient on sediment balance in Haringvliet Mouth
- Dune erosion processes, including comparison of software DUROSTA (extreme events with non-linear wave interactions) and UNIBEST CT (long time dune erosion).
- Access channel sedimentation near Port of Songkla, Thailand; investigation on optimal dredging management using SUTRENCH
- Hurricane waves in the Caribbean sea. Assessment and hindcasting of design wave heights based probabilistic approach using Hurricane data
- Morphological developments of Hai Phong estuary (using DELFT 3D)
- Prediction of beach erosion of Hue coast and assessment of different alternatives like beach nourishment and different groyne systems (using UNIBEST).
- Investigation on morphological behaviour of Thuan An inlet Hue Lagoon, Vietnam and the related hydraulic reactions of the lagoon

1997-2000

The Netherlands: co-ordination of course Coastal Engineering and Port Development, responsible for progress of the course, both financially and qualitatively, involvement of 20 students, 4 IHE staff and 30 guest lecturers

References

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