CURRICULUM VITAE

PERSONAL:

NAME :	Svein Sævik
BORN:	1958
NATIONALITY:	Norwegian
LANGUAGES:	Norwegian, English
PRESENT POSITION:	Professor
E-MAIL:	svein.savik@ntnu.no

EDUCATION:

1990-1992	Ph.D. (Dr.ing.) from the Norwegian Institute of Technology (now NTNU), Department of Marine Structures. Thesis: *On Stresses and Fatigue in Flexible Pipes*
1978-1982	M.Sc., (Siv.ing.) from the Norwegian Institute of Technology (now NTNU), Department of Structural Mechanics. Thesis: *Random Vibrations of Structures with Nonlinear damping*
1978	*Examen Philosophicum*, University of Tromsø, 1978.

EMPLOYMENT/EXPERIENCE SUMMARY:

1983-1990	Project engineer at REINERTSEN Engineering. 6 years experience from various civil and pipeline engineering projects. Experience also includes development of computer programs for pipeline design.
1990-1992	PhD scholarship holder at the Norwegian Institute of Technology, Department of Marine Structures. 2 years of research experience focusing on stress and fatigue analysis of flexible pipes.
1993 -1996	Discipline Lead Engineer – Risers, REINERTSEN Engineering. Experience includes position as Engineering Manager of pipeline detail engineering and studies related to the use of titanium for dynamic riser applications.
1996-2006	Senior researcher at MARINTEK - Structural Engineering, focusing on the development of design tools for flexible pipes and umbilicals to reduce risk related to deep water developments. The work included theoretical formulation of new methods, numerical code development, laboratory verification testing as well as design verification analyses

	towards the oil industry. Research within flexible pipe lifetime models resulted in two awards, MARINTEK's research award for 1999 and STATOIL's research award for 2002. The methods and tools developed are extensively used by oil companies and both flexible pipe and umbilical manufacturers.
2006-2008	Chief Scientist at MARINTEK, involved in developing the pipeline installation simulation tool SIMLA to reduce risk related to the pipeline installation at the Ormen Lange Gas Field. Results from research work have been presented twice on Norwegian public broadcasting (NRK).
2008-2009	Chief Engineer at REINERTSEN. working as technical advisor supervising junior engineers, also responsible for implementation of the SIMLA program system within the organization and supporting specialist structural analyses for different projects.
2009-	Professor at NTNU, Department of Marine Technology. Head of the Structure Laboratory.
2013-2017	Head of the Master Programs in Marine Technology, Deputy Head of the Department of Marine Technology.
2017-	Appointed Visiting Professor of Dalian University of Technology, China
2018-	Editor, Elsevier Journal of Marine Structures

MEMBERSHIPS:

2019-	Norwegian Academy of Technological Sciences
1983-	The Norwegian Society of Graduate Technical and Scientific Professionals

TEACHING:

I am presently teaching in Master courses *Advanced Structural Analysis*, *Dynamic Analysis of Marine Structures*, *Marine Operations, Underwater technology,* Ph.D course *Dynamic Analysis of Slender Marine Structures* as well as supervising Master and Ph.D. students (83 master students and 15 PhD students since 2010).

RESEARCH:

The main research interest is related to structural behavior of slender marine structures such as pipelines, flexible pipes, umbilicals and power cables focusing on:

1. Development of dedicated finite element models for stress analysis
2. Methods for online monitoring of stresses and temperatures
3. Develop methods for small scale fatigue testing
4. Validation of models based on full scale testing.
5. Non-linear global dynamics
6. Models for time domain analysis of riser vortex induced vibration

7. Fully coupled riser dynamics including both internal and external flows

GOVERNMENTAL DUTIES:

Appointed as technical expert by the Ministry of Trade and Industry.

PH.D COMMITTEE WORK:

Have been working both as an administrator 8 times and acting as an opponent 5 times

INTERNATIONAL COMMITTEES:
Member of ISSC2021 Dynamic response, ISSC2018 Subsea Committee, ISSC2015 Risers and Pipelines, ISSC2012 Impulsive Pressure Loading and Response Assessment, API Flexible Pipe Task Group, Member of the editorial board of Elsevier Journal of Marine Structures since 2015, Editor from 2018.

SCIENTIFIC CANDIDATE EVALUATION COMMITTEES:

Have participated in 5 candidate evaluation scientific committees, 4 as an administrator.

INTERNATIONAL JOURNAL REFEREE:

Elsevier Journals: Marine Structures (88 papers), Ocean Engineering (14 papers) , Engineering Structures (6 papers), Composite structures (2 papers), Applied Ocean Research (11 papers).

AWARDS:

MARINTEK's research award for best publication in 1999, STATOIL's Research Award for 2002, OMAE Best paper awards for the Pipeline and Riser Symposium at the Ocean, Offshore and Arctic Engineering Conference in 2010 and 2020.

INVITED KEYNOTE SPEECHES

1. DnVGL international seminar, Flexibles Excellence, *Resent developments concerning Modelling and Testing as a basis for Fatigue Analysis of Flexible Pipes*, February 2018.
2. Society for Underwater Technology Technical Conference, Beijing, China, September 27-30, 2016, *Challenges for Application of Flexible Riser in Deep and Ultra-Deep Water Depth*
3. International Symposium of Offshore Structure and Pipelines, ISOSP 2016, Zhejiang University, *16th June 2016, Analysis Procedures used to calculate Fatigue and Extreme Stresses in Umbilicals versus Future Needs*
4. International Ocean and Polar Engineering Conference, ISOPE 2016, Rhodos, Greece, 29th of June 2016, *Analysis Procedures used to calculate Fatigue and Extreme Stresses in Umbilicals versus Future Needs*
5. COTech & OGTech Conference, University of Stavanger, Norway, on 28-29th November, 2019, *The use of Curved Sandwich Beam elements in Stress analysis of Slender Structures with Complex Cross-sections*
6. Petroleum Safety Authority, Norway, Seminar on 4th December 2019, Flexible pipes – integrity management, aging, experience sharing and continuous improvement, *Methods for calculating Fatigue Stresses in Flexible Pipes – An Overview*

7. International Symposium on Dynamics and Aerodynamics of Cables, UIS, Stavanger, 16-17th September 2021, *Fatigue of Dynamic Power Cables in Marine Applications exposed to Small Amplitude Oscillations*
8. 10th International SUT Technical Conference, Dalian, China, 22-25th October, 2021*, Fatigue of Marine Dynamic Power Cables.*

PUBLICATIONS:

In summary:

1 book
1 book chapter
47 international refereed journal papers
69 refereed international conference papers
H-index 23 (Google scholar)

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Book:

1. Sævik, Svein; Ye, Naiquan: *Aspects of Design and Analysis of Offshore Pipelines and Flexibles*. Southwest Jiao Tong University Press 2016 (ISBN 978-7-5643-4466-5)

Book chapter:

1. Larsen, Carl Martin, Sævik, Svein, Qvist, Jacob. *Design Analysis. I: Handbook on Design and Operation of Flexible Pipes*. Trondheim: Norsk Marinteknisk Forskningsinstitutt AS 2014 ISBN 978-82-7174-265-2. s. 155-276.

Articles in international refereed journals:

1. Han, Xu; Leira, Bernt Johan; Sævik, Svein. *Vessel hydrodynamic model tuning by Discrete Bayesian updating using simulated onboard sensor data*. Ocean Engineering 2021 ;Volum 220.
2. Han, Xu; Leira, Bernt Johan; Sævik, Svein; Kaasen, Karl Erik, *Validation of vessel seakeeping model tuning algorithm based on measurements at model scale*. Marine Structures 2021 ;Volum 80.
3. Han, Xu; Leira, Bernt Johan; Sævik, Svein; Ren, Zhengru. *Onboard tuning of vessel seakeeping model parameters and sea state characteristics.* Marine Structures 2021 ;Volum 78.
4. Han, Xu; Ren, Zhengru; Leira, Bernt Johan; Sævik, Svein. *Adaptive identification of lowpass filter cutoff frequency for online vessel model tuning.* Ocean Engineering 2021 ;Volum 236.
5. Han, Xu; Sævik, Svein; Leira, Bernt Johan. *Tuning of vessel parameters including sea state dependent roll damping*. Ocean Engineering 2021 ;Volum 233.
6. Kim, Sangwoo; Sævik, Svein; Wu, Jie; Leira, Bernt Johan. *Prediction of deepwater riser VIV with an improved time domain model including non-linear structural behavior*. Ocean Engineering 2021 ;Volum 236.
7. Kim, Sangwoo; Sævik, Svein; Wu, Jie; Leira, Bernt Johan. *Simulating High-Mode Vortex-Induced Vibration of a Riser in Linearly Sheared Current Using an Empirical Time-Domain Model.* Journal of Offshore Mechanics and Arctic Engineering 2021 ;Volum 143.
8. Longva, Vegard; Ji, Guomin; Sævik, Svein; Ye, Naiquan; Gjøsteen, Janne Kristin Økland; Giertsen, Egil; Wang, Yanbin. *Algorithmic formulation of clay and sand pipe–soil interaction models for on-bottom stability analysis*. Marine Structures 2021 ;Volum 78.

9. Ramírez-Macías, Juan A.; Vásquez, Rafael E.; Sørensen, Asgeir Johan; Sævik, Svein. *Motion Feasibility Framework for Remotely Operated Vehicles Based on Dynamic Positioning Capability*. Journal of Offshore Mechanics and Arctic Engineering 2021 ;Volum 143.(1)
10. Wang, Huanhuan; Yang, Jin; Sævik, Svein; Leira, Bernt Johan; Zhang, Dongyufu; Hu, Zhiqiang; Xu, Fei; Wang, Wenxing. *Mechanical analysis of drilling riser based on pipe-in-pipe model.* Applied Ocean Research 2021 ;Volum 116.
11. Yang, Zhixun; Yan, Jun; Sævik, Svein; Lu, Qingzhen; Ye, Naiquan; Chen, Jinlong; Yue, Qian-Jin. *Integrated optimisation design of a dynamic umbilical based on an approximate model*. Marine Structures 2021 ;Volum 78.
12. Dai, Tianjiao; Sævik, Svein; Ye, Naiquan. Experimental and numerical studies on dynamic stress and curvature in steel tube umbilicals. Marine Structures 2020 ;Volum 72.
13. Tian, Deqiang; Fan, Honghai; Leira, Bernt Johan; Sævik, Svein. Study on the static behavior of installing a deep-water drilling riser on a production platform. Journal of Petroleum Science and Engineering 2020 ;Volum 185.
14. Tian, Deqiang; Fan, Honghai; Leira, Bernt Johan; Sævik, Svein; Fu, Ping. Static analysis of interaction between two adjacent top tensioned risers with consideration of wake effects. Ocean Engineering 2020 ;Volum 195.
15. Wu, Jie; Yin, Decao; Lie, Halvor; Riemer-Sørensen, Signe; Sævik, Svein; Triantafyllou, Michael. *Improved VIV Response Prediction Using Adaptive Parameters and Data Clustering*. Journal of Marine Science and Engineering 2020 ;Volum 8.
16. Thorsen, M. J., Challabotla, N. R., Sævik, S., Nydal, O. J. : *A numerical study on vortex-induced vibrations and the effect of slurry density variations on fatigue of ocean mining risers*, Ocean Engineering 2019, Volume 174. p. 1-13, https://doi.org/10.1016/j.oceaneng.2019.01.041
17. Ulveseter, J. V., Thorsen, M. J., Sævik, S., Larsen, C. M.: *Simulating fundamental and higher harmonic VIV of slender structures,* Applied Ocean Research 2019, Volume 90, https://doi.org/10.1016/j.apor.2019.101856.
18. Vieiro M. J. J.: Akhiiartdinov, A., Sævik, S., Larsen, C. M., Nydal, O. J.: *Two-way coupled fluid-structure interaction of gas-liquid slug flow in a flexible riser: Small-scale experiments and simulations*. Multiphase Science and Technology 2019, Volume 31.(1) p. 27-43, https://doi.org/10.1615/MultScienTechn.2019029489
19. Dai, T., Sævik, S., Ye, N.: *An anisotropic friction model in non-bonded flexible risers,* Marine Structures 2018 , Volume 59. p. 423-443, https://doi.org/10.1016/j.marstruc.2018.02.012
20. Ulveseter, J.V., Thorsen, M.J., Sævik, S., Larsen, C.M.: *Time domain simulation of riser VIV in current and irregular waves*. Marine Structures 2018 ;Volume 60. p. 241-260
21. Ulveseter, J. V., Thorsen, M. J., Sævik, S., Larsen, C. M.: *Stochastic modelling of cross-flow vortex-induced vibrations,* Marine Structures 2017, 56, pp. 260-280, http://doi.org/10.1016/j.marstruc.2017.08.001
22. Dai,T., Sævik, S., Ye, N.: *Friction models for evaluating dynamic stresses in non-bonded flexible risers*, Marine Structures 2017, Vol. 55, pp 137-161, http://doi.org/10.1016/j.marstruc.2017.05.010
23. Sævik S., Thorsen MJ. : *An Analytical Treatment of Buckling and Instability of Tensile Armors in Flexible Pipes*. ASME. J. Offshore Mech. Arct. Eng. 2017;139(4):041701-041701-6. http://doi.org/10.1115/1.4036205
24. Thorsen, MJ, Sævik, S., Larsen, CM: *Non-linear time domain analysis of cross-flow vortex-induced vibrations,* Marine Structures 2017, Volume 51, p. 134-151
25. Ulveseter, JV; Sævik, S.; Larsen, CM: *Time domain model for calculation of pure in-line vortex-induced vibrations*, Journal of Fluids and Structures 2017
26. Thorsen, M.J., Sævik, S., Larsen, C.M.: *Time domain simulation of vortex-induced vibrations in stationary and oscillating flows*. Journal of Fluids and Structures 2016, Vol. 61. s. 1-19.

27. Longva, Vegard; Sævik, Svein: *On prediction of torque in flexible pipe reeling operations using a Lagrangian-Eulerian FE framework*. Marine Structures 2016 ;Vol. 46. s. 229-254.
28. Yang, X.; Sævik, S.; Sun, L.: *Numerical analysis of buckling failure in flexible pipe armor wires*, Ocean Engineering 2015,Volum 108, s. 594-605.
29. Thorsen, M.J., Sævik, S., Larsen, C. M.: *Fatigue damage from time domain simulation of combined in-line and cross-flow vortex-induced vibrations*, Marine Structures 2015, Volume 41, s. 200-222.
30. Longva, V., Sævik, S.:*A Lagrangian–Eulerian formulation for reeling analysis of history-dependent multilayered beams.* Computers & structures 2015, Volume 146. s. 44-58, http://dx.doi.org/10.1016/j.compstruc.2014.09.002
31. Nasution, F. P., Sævik, S., Berge, S.: *Experimental and finite element analysis of fatigue strength for 300 mm2 copper power conductor*, Marine Structures, 2014, http://dx.doi.org/10.1016/j.marstruc.2014.07.005
32. Thorsen, M.J., Sævik,S., Larsen, C.M.: *A simplified method for time domain simulation of cross-flow vortex-induced vibrations*, Journal of Fluids and Structures, Volume 49, August 2014, Pages 135–148, http://dx.doi.org/10.1016/j.jfluidstructs.2014.04.006
33. Longva, V., Sævik, S., Levold, E., Ilstad, H.: *Dynamic simulation of subsea pipeline and trawl board pull-over interaction*, Marine Structures, 34, p.156-184, Dec 2013, http://dx.doi.org/10.1016/j.marstruc.2013.09.004
34. Longva, V., Sævik, S.: *A penalty-based contact element for pipe and 3D rigid body interaction*, Engineering Structures, Volume 56, Pages 1580–1592, November 2013, http://dx.doi.org/10.1016/j.engstruct.2013.07.025 .
35. Nasution, F. P., Sævik, S., Gjøsteen, J.K.Ø.: *Finite element analysis of the fatigue strength of copper power conductors exposed to tension and bending loads* International Journal of Fatigue, 2013, http://dx.doi.org/10.1016/j.ijfatigue.2013.09.009.
36. Nasution, F. P., Sævik, S., Gjøsteen, J.K.Ø., Berge, S.: *Experimental and finite element analysis of fatigue performance of copper power conductors*, International Journal of Fatigue, 2012, http://dx.doi.org/10.1016/j.ijfatigue.2012.09.006.
37. Nasution, F. P. , Sævik, S. , Gjøsteen, Janne.K.Ø.: *Fatigue Analysis of Copper Conductor for Offshore Wind Turbines by Experimental and FE Method* , Energy Procedia, 24, p.271-280, Jan 2012, http://dx.doi.org/10.1016/j.egypro.2012.06.109.
38. Sævik, S., Gjøsteen, J.K.Ø.: *Strength Analysis Modelling of Flexible Umbilical Members for Marine Structures*, Journal of Applied Mathematics, 2012, http://dx.doi.org/10.1155/2012/985349
39. Sævik, S.: *Theoretical and experimental studies of stresses in flexible pipes,* Computers and Structures 89, pp. 2273-2291, 2011, http://dx.doi.org/10.1016/j.compstruc.2011.08.008.
40. Sævik, S., Bruaseth, S.: *Theoretical and experimental Studies of the Axisymmetric Behaviour of Complex Umbilical Cross-sections*, Applied Ocean Research 27, pp. 97-106, 2005, http://dx.doi.org/10.1016/j.apor.2005.11.001.
41. Sævik, S., Berge, S.: *Fatigue Testing and Theoretical Studies of two 4-inch Flexible Pipes*, Engineering Structures, Vol 17, No 4, pp 276-292, 1995, http://dx.doi.org/10.1016/0141-0296(95)00026-4.
42. Estefen, S.F. / Moan, T. / Sævik, S. / Zimmer, R.A. : *Limit State Formulations for TLP Tendon and Steel Riser Bodies*, Journal of Constructional Steel Research, 32 (Engineering), p.107-121, Jan 1995 http://dx.doi.org/10.1016/0143-974X(94)00012-7
43. Berge, S. Sævik, S., Engseth, A., Aarnes, R.: *Titanium in riser study,* Journal of Offshore Technology. Vol. 3, no. 4, pp. 35-37, 1995
44. Moan, T., Estefen, S.F., Sævik, S., Zimmer, R.A.: *Limit states for the Ultimate Strength of Tubulars subjected to Pressure, Bending and Tension Loads*, Marine Structures, 7, 1994, http://dx.doi.org/10.1016/0951-8339(94)90029-9.

45. Sævik, S: *A Finite Element Model for Predicting Stresses and Slip in Flexible Pipe Armouring Tendons at Bending Gradients,* Computers & Structures, Vol 46, No 2, 17 January, 1993, http://dx.doi.org/10.1016/0045-7949(93)90187-I.

Refereed conference papers:

1. Han, Xu; Leira, Bernt Johan; Sævik, Svein; Radhakrishnan, Gowtham; Skjong, Stian; Kyllingstad, Lars Tandle. A Framework for Condition Monitoring and Risk-Based Decision Support Involving a Vessel State Observer. I: ASME 2021 40th International Conference on Ocean, Offshore and Arctic Engineering Volume 2: Structures, Safety, and Reliability. The American Society of Mechanical Engineers (ASME) 2021 ISBN 978-0-7918-8512-3. s. -
2. Radhakrishnan, Gowtham; Han, Xu; Sævik, Svein; Gao, Zhen; Leira, Bernt Johan. System Uncertainty Effects on the Wave Frequency Response of Floating Vessels Based on Polynomial Chaos Expansion. International Conference on Offshore Mechanics and Arctic Engineering (OMAE) [proceedings] 2021.
3. Sieber, L.; Sævik, Svein; Ringsberg, J. W.; Liu, Zhenhui. Assessment of VIV fatigue of subsea template jumper by using a time domain model. I: Developments in the Analysis and Design of Marine Structures: Proceedings of the 8th International Conference on Marine Structures (MARSTRUCT 2021, 7-9 June 2021, Trondheim, Norway). CRC Press 2021 ISBN 9781032136653.
4. Yin, Decao; Wu, Jie; Lie, Halvor; Jin, Jingzhe; Passano, Elisabeth; Sævik, Svein; Riemer-Sørensen, Signe; Rustad, Anne Marthine; Tognarelli, Michael; Grytøyr, Guttorm; Andersen, Torgrim; Karunakaran, Daniel; Igland, Ragnar; Gaskill, Collin. Optimization of Hydrodynamic Coefficients for VIV Prediction. ASME 2021 40th International Conference on Ocean, Offshore and Arctic Engineering
5. Yin, Decao; Wu, Jie; Lie, Halvor; Jin, Jingzhe; Passano, Elisabeth; Sævik, Svein; Riemer-Sørensen, Signe; Rustad, Anne Marthine; Tognarelli, Michael; Grytøyr, Guttorm; Andersen, Torgrim; Karunakaran, Daniel; Igland, Ragnar; Gaskill, Collin. Optimization of Hydrodynamic Coefficients for VIV Prediction. I: ASME 2021 40th International Conference on Ocean, Offshore and Arctic Engineering Volume 8: CFD and FSI. The American Society of Mechanical Engineers (ASME) 2021
6. Han, Xu; Sævik, Svein; Leira, Bernt Johan. A Sensitivity Study of Vessel Hydrodynamic Model Parameters. 39th International Conference on Ocean, Offshore & Arctic Engineering; 2020-08-03 - 2020-08-07
7. Han, Xu; Sævik, Svein; Leira, Bernt Johan. A Sensitivity Study of Vessel Hydrodynamic Model Parameters. I: ASME 2020 39th International Conference on Ocean, Offshore and Arctic Engineering - Volume 1: Offshore Technology. The American Society of Mechanical Engineers (ASME) 2020 ISBN 978-0-7918-8431-7.
8. Wu, Jie; Jin, Jingzhe; Yin, Decao; Lie, Halvor; Passano, Elisabeth; Sævik, Svein; Tognarelli, Michael; Grytøyr, Guttorm; Andersen, Torgrim; Karunakaran, Daniel; Igland, Ragnar Torvanger. Time Domain VIV Analysis Tool VIVANA-TD: Validations and Improvements. OMAE 2020; 2020-08-03 - 2020-08-07
9. Longva, Vegard; Ji, Guomin; Sævik, Svein; Ye, Naiquan; Gjøsteen, Janne Kristin Økland; Giertsen, Egil; Baarholm, Gro Sagli. 3D time domain on-bottom stability analysis of subsea pipelines.
10. Ramirez-Macias, Juan A.; Vasquez, Rafael E.; Sævik, Svein; Sørensen, Asgeir Johan. Object-oriented time-domain simulation framework for Remotely Operated Vehicles. 2019 IEEE 4th

Colombian Conference on Automatic Control; 2019-10-15 - 2019-10-18elines. 42nd Offshore Pipeline Technology Conference, OPT2019; 2019-02-25 - 2019-02-27

11. Riemer-Sørensen, Signe; Wu, Jie; Lie, Halvor; Sævik, Svein; Kim, Sangwoo. Data-Driven Prediction of Vortex-Induced Vibration Response of Marine Risers Subjected to Three-Dimensional Current. I: Nordic Artificial Intelligence Research and Development: Third Symposium of the Norwegian AI Society, NAIS 2019. Springer 2019 ISBN 978-3-030-35664-4
12. Challabotla, Niranjan Reddy; Smith, Ivar Eskerud; Nydal, Ole Jørgen; Sævik, Svein. Simulation of two-phase flow in airlift pump using 1D two-fluid model. Underwater Mining Conference 2018; 2018-09-10 - 2018-09-14
13. Thorsen, M.J., Sævik, S.: *An Analytical Model of the Effect of Internal Density Waves in Risers Subjected to Vortex Shedding,* International Society of Offshore & Polar Engineers 2018 ISBN 978-1-880653-87-6. p. 168-175
14. Chongyao Zhou, Zhiming Huang, Yongtian Kang, Zhang, D., Ye, N., Sævik, S.: *The Study of a New Concept of Flexible Pipe With Carbon Fiber/Epoxy Reinforced Inner Sheath*, OMAE2017-61069
15. Sævik, S., Koloshkin, E.: *Torsion Instability of Offshore Cables During Installation*, OMAE2017-61135
16. Dai,T, Ye, N., Sævik, S.: *The Effect of Stick Stiffness of Friction Models on the Bending Behavior in Non-Bonded Flexible Risers,* OMAE2017-62644
17. Ramirez-Macias, J.A., Sørensen, A. Vasquez, R.E., Sævik, S.: *A Methodology for DP Capability Studies on Remotely Operated Vehicles,* OMAE2017-61918
18. Zhou, C., Xu, G., Huang, Z., Zhang, Z., Ye, N., Sævik, S.: *The Study on the Influence of Pipe-Soil Interaction on VIV for Different Free Span Types,* OMAE2017-61117
19. Thorsen, M.J. , Sævik,S. :*Simulating Riser VIV in Current and Waves Using an Empirical Time Domain Model,* OMAE2017-61217
20. Ulveseter, J.V., Sævik, S.: *In-Line Vibrations of Flexible Pipes,* OMAE2017-61325
21. Jan. V. Ulveseter, Svein Sævik, Carl M. Larsen: Vortex Induced Vibrations of Pipelines With Non-Linear Seabed Contact Properties, OMAE2016-54424
22. Hagbart S. Alsos, Asta O. Wendel, Stig Olav Kvarme, Svein Saevik :Analysis of Clump-Weight Interference With Offshore Pipelines: Mechanisms and Actions, OMAE2016-54196:
23. Lidong Wang, Naiquan Ye, Svein Sævik, Qianjin Yue, Zhixun Yang, Jinlong Chen: Alternative Stress Models With Focus on Full FE Model for Flexible Risers, OMAE2016-54547
24. Agusta, A. Ji, G., Sævik, S.: Non-Linear Clay Soil Model for Lateral Pipe-Soil Interaction, OMAE2016-54658
25. Knudsen, T.H.: Sævik, S., Thorsen, M.J.: Numerical Analysis of Combined VIV and Slug Flow in Time Domain, OMAE2016-54891
26. Dai, T., Sævik, S., Ye, N.: Comparison study of umbilicals' curvature based on full scale tests and numerical models, ISOPE2016,
27. Lyngsaunet, O. M., Foss, P., Sævik, S.: Detailed Simulation of Interference Between Clump Weight and Subsea Pipelines, Proceedings of the twenty-fifth International Ocean and Polar Engineering Conference - ISOPE 2015, International Society of Offshore & Polar Engineers, 2015, ISBN 978-1-880653-89-0, s 1208-1214.
28. Zhou, C., Sævik, S., Ye, N., Ji, G.,: *Effect of lay angle of anti-buckling tape on lateral buckling behavior of tensile armors*. OMAE 2015; 2015-05-31 - 2015-06-05
29. Ji, G., Leira, B.J., Sævik, S., Klæbo, F., Axelsson, G., Fergestad, D.: *Integrity assessment of damaged flexible pipe cross-sections*. 33rd International Conference on Ocean, Offshore and Arctic Engineering OMAE 2014; 2014-06-08 - 2014-06-13
30. Sævik, S., Ji, G.: *Differential equation for evaluating transverse buckling behavior of tensile armour wires*. 33rd International Conference on Ocean, Offshore and Arctic Engineering OMAE2014; 2014-06-08 - 2014-06-13

31. Thorsen, M.J., Sævik, S., Larsen, C.M.: *Time domain simulation of cross-flow and in-line vortex-induced vibrations*. I: Proceedings of the 9th International Conference on Structural Dynamics, EURODYN 2014. : Falculty of Engineering of University of Porto 2014 ISBN 9789727521654. s. 3105-3111
32. Sævik, S., Li, H.: *Shear interaction and transverse buckling of tensile armours in flexible pipes*, Proceedings of the 32nd International Conference on Ocean, Offshore and Arctic Engineering, International Conference on Offshore Mechanics and Arctic Engineering, ISBN: 978-0-7918-5536-2, July 9-14, 2013, Nantes, France, http://dx.doi.org/10.1115/OMAE2013-10130.
33. Wu, X., Longva, V., Sævik, S., Moan, T.: *Simulation of hooking event in fish trawling operations*, Proceedings of the 32nd International Conference on Ocean, Offshore and Arctic Engineering, International Conference on Offshore Mechanics and Arctic Engineering, ISBN: 978-0-7918-5536-2, , July 9-14, 2013, Nantes, France, http://dx.doi.org/10.1115/OMAE2013-10490.
34. Nasution, F.P, Gjøsteen, J.K.,, Sævik, S., Berge, S.: *Experimental investigation of fatigue performance of a 300 mm^2 copper power conductor*, Proceedings of the 32nd International Conference on Ocean, Offshore and Arctic Engineering, International Conference on Offshore Mechanics and Arctic Engineering, ISBN: 978-0-7918-5536-2, July 9-14, 2013, Nantes, France, http://dx.doi.org/10.1115/OMAE2013-11193 .
35. Maalø, K., Alsos, H.S, Sævik, S. : *Detailed analysis of clump-weight interference with subsea pipelines*, Proceedings of the 31th International Conference on Ocean, Offshore and Arctic Engineering, International Conference on Offshore Mechanics and Arctic Engineering, ISBN: 978-0-7918-4490-8, July 1-6, 2012, Rio de Janeiro, Brazil, http://dx.doi.org/10.1115/OMAE2012-83869.
36. Nasution, F. P., Sævik, S., Gjøsteen, J.K.Ø.: *Study of fatigue strength of copper conductor considering surface irregularities by experimental testing and FE-analysis*, Proceedings of the 31th International Conference on Ocean, Offshore and Arctic Engineering, ISBN: 978-0-7918-4490-8, July 1-6, 2012, Rio de Janeiro, Brazil, http://dx.doi.org/10.1115/OMAE2012-83563.
37. Sævik, S., Thorsen, M.J.: *Techniques for predicting tensile armour buckling and fatigue in deep water flexible pipes*, Proceedings of the 31th International Conference on Ocean, Offshore and Arctic Engineering, ISBN: 978-0-7918-4490-8, July 1-6, 2012, Rio de Janeiro, Brazil, http://dx.doi.org/10.1115/OMAE2012-83563.
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1996 – present	SIMLA Computer program for Pipeline Lay Analysis (100 000 code lines).

USAP
Computer program for Stress Analysis of AkerKvaerner umbilicals (100 000 code lines).

UFLEX
Computer program for Stress Analysis of Nexans umbilicals (100 000 code lines).

BFLEX
Computer program for Stress and Fatigue Analysis of Flexible Pipe Tensile Armour (70 000 code lines)

PFLEX
Computer program for Longitudinal Stress Analysis of Pressure Armour (70 000 code lines).

BOUNDARY
Computer program for Transverse Stress Analysis of Pressure Armour (60 000 code lines).

1990-1992

AFLEX
A non-linear FEM computer program for Stress Analysis of Flexible Pipe Armouring
Tendons exposed to Bending Gradients

1982-1990

PAS
A non-linear FEM computer program for two dimensional static and three dimensional dynamic analysis of pipelines.

J-TUBE
A non-linear FEM computer program for J-tube pull-in analysis of pipeline bundles.

PIPE-FLEX
A non-linear FEM computer program for static and dynamic analysis of cables and flexible pipes.

PIG-NEAL
A non-linear FEM computer program for overflop analysis of pig cups.

PIPE-LAY
A finite difference computer program for lay stress analysis of pipelines.