

In preparation

- a. Straub D., Goyet J., Sørensen J.D., Faber M.H. (2006). Benefits of risk based inspection planning for offshore structures. To be submitted to *OMAE'06*.
- b. Faber M.H., Maes M.A., Straub D., Baker J.W. (2006). On the Quantification of Robustness of Structures. To be submitted to *OMAE'06*.
- c. Montes-Iturrizaga R., Heredia-Zavoni E., Marcial-Martínez E., Straub D., Faber M.H. (2006). Risk Based Structural Integrity Management Using Bayesian Probabilistic Nets. To be submitted to *Proc. OMAE'06*.
- d. Grêt-Regamey A., Straub D. (2006). Spatially explicit valuation of avalanche risks using Bayesian networks. To be submitted to *Natural Hazards and Earth System Sciences*.

Submitted

1. Straub D., Malioka V., Faber M.H. (2005). A framework for the asset integrity management of large deteriorating concrete structures. Submitted to *Structure and Infrastructure Engineering*.
2. Straub D., Faber M.H. (2005). Inspektionsstrategien für den optimalen Unterhalt von Tragwerken. Submitted to *Stahlbau*.

Referred journal publications

3. Straub D., Faber M.H. (2006). Temporal Variability in Corrosion Modeling and Reliability Updating. Accepted for publication in *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME.
4. Nishijima K., Straub D., Faber M.H. (2006). Sustainable Decisions for Life-Cycle Based Design and Maintenance. Accepted for publication in *International Journal of Risk Assessment and Management*.
5. Straub D., Faber M.H. (2006). Computational Aspects of Risk Based Inspection Planning. *Computer-Aided Civil and Infrastructure Engineering*, **21**(3), pp. 179-192.
6. Faber M.H., Straub D., Maes M.A. (2006). A Computational Framework for Risk Assessment of RC Structures Using Indicators. *Computer-Aided Civil and Infrastructure Engineering*, **21**(3), pp. 216-230.
7. Nishijima K., Straub D., Faber M.H. (2006). Inter-generational distribution of the life-cycle cost of an engineering facility. *Journal of Reliability of Structures and Materials*, in press.
8. Straub D., Faber M.H. (2005). Risk Based Inspection Planning for Structural Systems. *Structural Safety*, **27**(4), pp 335-355.
9. Straub D., Faber M.H. (2005). Risk Based Acceptance Criteria for Joints Subject to Fatigue Deterioration. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **127**(2), pp. 150-157.
10. Faber M.H., Sørensen J.D., Tychsen J., Straub D. (2005). Field Implementation of RBI for Jacket Structures. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **127**(3), pp. 220-226.
11. Straub D., Faber M.H. (2004). System Effects in Generic Risk Based Inspection Planning. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **126**(3), pp. 265-271.
12. Faber M.H., Straub D., Goyet J. (2003). Unified Approach to Risk Based Inspection Planning for Offshore Production Facilities. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **125**(2), pp 126-131.
13. Goyet J., Straub D., Faber M.H. (2002). Risk Based Inspection Planning for Offshore Installations. *Structural Engineering International*, **12**(3), pp. 200-208.

14. Goyet J., Straub D., Faber M.H. (2002). Risk Based Inspection Planning - Methodology and Application to an Offshore Structure. *Revue Française de Génie Civil*, **6**(3), pp. 489-503.

Referred conference papers

15. Straub D., Faber M.H. (2005). Reliability Updating for Structures Subject to Localized Corrosion Defects. *Safety and Reliability of Engineering Systems and Structures (Proc. ICOSSAR 05, Rome)*, Augusti et al. (eds), Millpress.
16. Straub D. (2005). Natural hazards risk assessment using Bayesian networks. *Safety and Reliability of Engineering Systems and Structures (Proc. ICOSSAR 05, Rome)*, Augusti et al. (eds), Millpress.
17. Schubert M., Straub D., Faber M.H. (2005). Reliability of rock fall protection galleries – A case study with a special focus on the uncertainty modelling. *Safety and Reliability of Engineering Systems and Structures (Proc. ICOSSAR 05, Rome)*, Augusti et al. (eds), Millpress.
18. Sørensen J.D., Straub D., Faber M.H. (2005). Generic Reliability-Based Inspection Planning for Fatigue Sensitive Details – with Modification of Fatigue Load. *Safety and Reliability of Engineering Systems and Structures (Proc. ICOSSAR 05, Rome)*, Augusti et al. (eds), Millpress.
19. Nishijima K., Straub D., Faber M.H. (2005). The Effect of Changing Decision Makers on the Optimal Service Life Design of Concrete Structures. *Proc. 4th International Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems*, Florida, USA.
20. Faber M.H., Straub D., Chakrabarti P., Abu-Odeh I., De la O J. (2005). Fatigue Analysis and Risk Based Inspection Planning for Life Extension of Fixed Offshore Platforms. *Proc. OMAE05*, Greece.
21. Chakrabarti P., Mukkamala A., Abu-Odeh I., Majumdar B., Faber M.H., Straub D., De la O J. (2005). An Overview of the Reassessment Studies of Fixed Offshore Platforms in the Bay of Campeche, Mexico. *Proc. OMAE05*, Greece.
22. Straub D., Faber M.H. (2003). Modeling Dependency in Inspection Performance. *Applications of Statistics and Probability in Civil Engineering*, Der Kiureghian, Madanat & Pestana (eds), Millpress, pp. 1123 – 1130.
23. Straub D. (2002). Probabilistic Modeling of Non-Destructive Testing of Steel Structures. *Proc. 4th International Ph.D. Symposium in Civil Engineering*, Munich, Vol.2, pp. 311-320.
24. Goyet J., Straub D., Faber M.H. (2001). Planning d'inspection basé sur l'analyse de risque: méthodologie d'ensemble et application aux structures offshore. *Proc. 3^{ème} Conférence Nationale Fiabilité des Matériaux et des Structures*, Bordeaux.

Monographs

25. Straub D. (2004). *Generic Approaches to Risk Based Inspection Planning for Steel Structures*. IBK Bericht 284, VdF Verlag, Zürich.

Others, including research reports

26. Straub D., Faber M.H. (2005). Die Planung und der Wert von Inspektionen für Bauwerke. *Der Bauingenieur*, Springer, **1**(6), pp. 24-29.
27. Baker J.W., Straub D., Nishijima K., Faber M.H. (2005). On the Assessment of Robustness I: A General Framework. *Proc. JCSS Workshop on Robustness of Structures*, BRE, Watford, UK.

28. Schubert M., Straub D., Baker J.W., Faber M.H. (2005). On the Assessment of Robustness II: Numerical Investigations. *Proc. JCSS Workshop on Robustness of Structures*, BRE, Watford, UK.
29. Stern B., Trau J., Freimark H., Straub D., Gogu R., Hurni L. (2005). Development of a Web-Mapping Expert Tool for Hazard Assessment in Alpine Valleys. *Proc. XXII International Cartographic Conference*, A Coruna, Spain.
30. Straub D., Faber M.H. (2004). Computational Aspects of Generic Risk Based Inspection Planning. Keynote lecture, *Proc. 2nd ASRANet Colloquium*, Barcelona.
31. Straub D., Faber M.H. (2004). On the Relation between Inspection Quality and Quantity. *e-Journal of Nondestructive Testing*, **9**(7), www.ndt.net.
32. Straub D., Faber M.H. (2004). Recent Developments in Risk Based Inspection Planning for Structures. *Proc. PSAM 7 Probabilistic Safety Assessment and Management*, Berlin.
33. Straub D. (2003). Accounting for Dependencies in Inspection Planning for Steel Structures. *Proc. Workshop on Risk-Based Maintenance*, TU Delft, pp. 54-61.
34. Straub D. (2001). *Detailed Risk Based Inspection Planning for FPSO Components Subject to Fatigue*. Bureau Veritas, Technical Note #2682, ATA 818A.
35. Straub D. (2001). *Generic Risk Based Inspection Planning – An Introductory Example*. Bureau Veritas, Technical Note #2657, ATA 818A.
36. Straub D., Faber M.H. (2000). Generic Risk Based Inspection Planning for Components Subject to Corrosion. *Proc. ESRA Workshop on Risk Based Inspection Planning*, Zürich, pp. 129-138.
37. Schulte O., Straub D. (2000). *Schubversuche an der Platzertobelbrücke*. Diploma Thesis, Institute of Structural Engineering, ETH Zürich.