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## **Journal Articles and Conference Proceedings**

### **3D Laser Scanning: Engineering Geology Applications**

- Balzani, M.; Pellegrinelli, M.; Perfetti, N; Russo, P. and Uccelli, F. (2001): Terrestrial 3D laser scanner: preliminary accuracy test. In Proceedings of the Italy-Canada 2001 Workshop on 3D Digital Imaging and Modelling applications in Heritage, Industry, Medicine and Land, 8pp.
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- Fardin, N.; Stephansson, O. and Jing L. (2001): The scale dependence of rock joint surface roughness. *Int. J. Rock Mech. Min. Sci.*, 38, pp. 659–669.
- Feng, Q., Sjögren, P., Stephansson, O. and Jing, L. (2001). Measuring fracture orientation at exposed rock faces by using a non-reflector total station. *Engineering Geology* 59, pp. 133-146.
- Feng, Q.; Fardin, N.; Jing, L. and Stephansson, O. (2003): A new method for in situ non-contact roughness measurement of large rock fracture surfaces. *Rock Mech. Rock Eng.*, 36, pp. 3–25.
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- Kemeny, J. and Turner, K. (2008). Ground-Based LiDAR: Rock Slope Mapping and Assessment. Federal Highway Administration, Technical Report No. FHWA-CFL/TD-08-006, 103 p.
- Kurisake, N.; Che, W. And Natane (2001): Application of 3D measurement with ground laser scanner. In: Videometrics and Optical Methods for 3D Shape Measurement, 22-23 January 2001, pp. 174-184.
- Lanoro, F.; Jing, L. and Stephansson, O. (1998): 3D laser measurement and representation of roughness of rock fractures. Proc. Symp. Mechanics of Jointed and Faulted Rock, Balkema, Rotterdam, pp. 185-189
- Lemy, F. and Hadjigeorgiou, J. (2004). A field application of laser scanning technology to quantify rock fracture orientation. In: Proceedings of the ISRM regional symposium EUROCK 2004 and 53rd geomechanics colloquy, pp. 435-438.
- Monte, J.M. (2004). Rock mass characterization using laser scanning and digital imaging data collection techniques. Thesis submitted to the Faculty of the Department of Mining and Geological Engineering in partial fulfillment of the requirements for the degree of Master of Geological Engineering in the Graduate College of the University of Arizona.
- Rowlands, K. A.; Jones, L. D. and Whitworth, M. (2003): Landslide laser scanning: a new look at an old problem. Quarterly Journal of Engineering Geology and Hydrogeology, 36, pp. 155-157.
- Slob, S. & Hack, H.R.G.K. (2004). 3D terrestrial laser scanning as a new field measurement and monitoring technique. In: Engineering Geology for Infrastructure Planning in Europe. A European Perspective. Eds: Robert Hack, Rafiq Azzam and Robert Charlier. Berlin, Springer Verlag, 2004. pp. 179-190.
- Slob, S., Hack, H.R.G.K., van Knapen, B., Turner, K. and Kemeny, K. (2005) A method for automated discontinuity analysis of rock slopes with 3D laser scanning. In: Proceedings of the Transportation Research Board 84th annual meeting, January 9-13, 2005. Washington, D.C. : TRB, 2005. 16 p.
- Slob, S.; Hack, H. R. G. K. and Turner, A. K. (2002): An approach to automate discontinuity measurements of rock faces using laser scanning techniques. In: C. Denis da Gama, L. Ribeiro e Sousa (eds.), ISRM International Symposium on Rock Engineering for Mountainous Regions- Eurock 2002. Sociedade Portuguesa de Geotecnia, pp. 87-94.
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### **3D Surface Reconstruction and Data Interpolation Techniques**

Carr, J.C., Beatson, R.K., Cherrie, J.B. Mitchell, T.J., Fright, W.R., McCallum, B.C. and Evans, T.R. (2003). Smooth surface reconstruction from noisy range data. ACM GRAPHITE 2003, Melbourne, Australia, pp119-126, 11-19 February 2003.

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