

## Publication list

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### Thesis, book chapters, manuals and reports

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- GENS, R.**, 2012. *Remote sensing of glaciers: Techniques for topographic, spatial and thematic mapping of glaciers (by P.K.E. Pellikka and W.G. Rees)*. Book review for Photogrammetric Engineering & Remote Sensing.
- PRAKASH, A. AND **GENS, R.**, 2010. *Remote sensing of coal fires*. In Stracher et al. (eds.) *Coal and peat fires: A global perspective, Volume 1, Coal - combustion and geology*. Elsevier, 380 pages.
- GENS, R.**, 2009. *Spectral Information Content of Remote Sensing Imagery*. In Li et al. (eds.) *Geospatial Technology for Earth Observation*. Springer, 558 pages.
- GENS, R.**, 2006. *Remote sensing of snow and ice (by W.G. Rees)*. Book review for ISPRS Highlights.
- GENS, R.** AND LOGAN, T., 2003. *Alaska Satellite Facility software tools: Manual*. Geophysical Institute, UAF, ISBN 0-915360-16-0, 180 pages.
- BREE, R.J.P., **GENS, R.**, GROOT, J.S., HALSEMA, D. VAN, HANSEN, R.F., HOUT, P. VAN DEN, KLEES, R., MIN, E. DE, SCHRAMA, E.J.O. AND USAI, S., 2000. *Deformation measurements with SAR*. Netherlands Remote Sensing Board, USP-2-99-16.
- GENDEREN, J.L. VAN, PRAKASH, A., **GENS, R.**, VEEN, B.S. VAN, LIDING, C., TAO, T.X. AND FENG, G., 2000. *Coal fire interferometry*. Netherlands Remote Sensing Board, USP-2-99-32.
- GENS, R.**, 1998. *Quality assessment of SAR interferometric data*. Doctoral thesis, University of Hannover, Germany, 141 pages.
- GENDEREN, J.L. VAN, CASSELLS, C. AND **GENS, R.** (EDS.), 1997. *Synergy of remotely sensed data - A European scientific research network*. Final report, Enschede, the Netherlands, ISBN 90-6164-151-9, 81 pages.

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### Refereed journal papers

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- GENS, R.**, Cryospheric Applications of SAR (in preparation).
- GENS, R.**, ATWOOD, D.K. AND POTTIER, E., 2013. Geocoding of polarimetric processing results: Alternative processing strategies. *Remote Sensing Letters*. **4** (1): 39-45.
- ATWOOD, D.K., SMALL, D. AND **GENS, R.**, 2012. Improving PolSAR Land Cover Classification With Radiometric Correction of the Coherency Matrix. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. In press.
- BIENIEK, P., BHATT, U., THOMAN, R., ANGELOFF, H., PARTAIN, J., PAPINEAU, J., FRITSCH, F., HOLLOWAY, E., WALSH, J., DALY, C., SHULSKI, M., HUFFORD, G., HILL, D., CALOS, S. AND **GENS, R.**, 2012. Climate divisions for Alaska based on objective methods. *Journal of Applied Meteorology and Climatology*. In press.
- PRAKASH, A., SCHAEFER, K., WITTE, W.K., COLLINS, K., **GENS, R.**, AND GOYETTE, M., 2011. Remote Sensing - GIS Based Investigation of a Boreal Forest Coal Fire. *International Journal of Coal Geology*. **86** (1): 79-86.
- BHATT, U.S., WALKER, D.A., RAYNOLDS, M.K., COMISO, J.C., EPSTEIN, H.E., JIA, G., **GENS, R.**, PINZON, J.E., TUCKER, C.J., TWEEDIE, C.E. AND WEBBER, P.J., 2010. Circumpolar Arctic tundra vegetation change is linked to sea-ice decline. *Earth Interactions*. **14** (8): 1-20.

- GENS, R.**, 2010. Remote sensing of coastlines: Detection, extraction and monitoring. *International Journal of Remote Sensing*, **37** (7): 1819-1836.
- GENS, R.**, 2008. Oceanographic Applications of SAR Remote Sensing. *GIScience & Remote Sensing*, **45** (3): 275-305.
- LI, S., BENSON, C., **GENS, R.** AND LINGLE, C. 2008. Motion patterns of Nabesna Glacier (Alaska) revealed by interferometric SAR techniques. *Remote Sensing of Environment*, **112** (9): 3628-3638.
- LIMPITLAW, D., AND **GENS, R.**, 2006. Dambo mapping for environmental monitoring using Landsat TM and SAR imagery: Case study in the Zambian Copperbelt. *International Journal of Remote Sensing*, **27** (21): 4839-4845.
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- PRAKASH, A., FIELDING, E.J., **GENS, R.**, GENDEREN, J.L. VAN AND EVANS, D.L., 2001. Data fusion for investigating land subsidence and coal fire hazards in a coal mining area. *International Journal of Remote Sensing*, **22** (6): 921-932.
- GENS, R.**, 2000. The influence of input parameters on SAR interferometric processing and its implication on the calibration of SAR interferometric data. *International Journal of Remote Sensing*, **21** (8): 1767-1771.
- GENS, R.**, 1999. Quality assessment of interferometrically derived digital elevation models. *International Journal of Applied Earth Observation and Geoinformation*, **1** (2): 102-108.
- GENS, R.**, 1999. SAR interferometry: Software, data format and data quality. *Photogrammetric Engineering & Remote Sensing*, **65** (12): 1375-1378.
- PRAKASH, A., **GENS, R.** AND VEKERDY, Z., 1999. Monitoring coal fires using multi-temporal night-time thermal images in a coalfield in North-west China. *International Journal of Remote Sensing*, **20** (14): 2883-2888.
- GENS, R.** AND GENDEREN, J.L. VAN, 1996. SAR interferometry - issues, techniques, applications. *International Journal of Remote Sensing*, **17** (10): 1803-1835.

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### Proceedings papers and conference presentations

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- ATWOOD, D., ARKO, S.A., **GENS, R.** AND SANCHES, R., 2011. Enhancing the Accessibility and Utility of UAVSAR L-band SAR Data. *AGU Fall Meeting*, San Francisco, CA, USA.
- BALSER, A., **GENS, R.** AND JONES, J., 2011. Synthetic Aperture RADAR (SAR) Polarimetry for Detection and Monitoring of Thermokarst Landforms in the Noatak Basin, Brooks Range, Alaska. *AGU Fall Meeting*, San Francisco, CA, USA.
- FLOYD, A., LIJEDAHL, A.K., **GENS, R.**, PRAKASH, A. AND MANN, D.H., 2011. Remote Sensing, Modeling, and In-Situ Measurements to Study the Spring and Summer Thermal Regime of the Kuparuk River, Northern Alaska. *AGU Fall Meeting*, San Francisco, CA, USA.
- BRYSON, G., BUECHLER, B., **GENS, R.**, HOGENSON, K., SHAPRAN, M. AND SHORT, G., 2010. From Phase to Fringe: How InSAR Might Work for You. *AGU Fall Meeting*, San Francisco, CA, USA.
- BIENIEK, P.A., BHATT, U.S., WALKER, D.A., RAYNOLDS, M.K., COMISO, J.C., EPSTEIN, H.E., **GENS, R.**, PINZON, J., TUCKER, C.J., STEELE, M. AND OZIMEK, C. 2010. Alaska tundra vegetation trends and their links to the large-scale climate. *AGU Fall Meeting*, San Francisco, CA, USA.
- BHATT, U.S., WALKER, D.A., RAYNOLDS, M.K., BIENIEK, P.A., EPSTEIN, H.E., COMISO, J.C., PINZON, J., TUCKER, C.J., POLYAKOV, I., LIU, Y., **GENS, R.**, TWEEDIE, C.E., WEBBER, P. AND JIA, G., 2010. Understanding drivers of recent Arctic tundra vegetation changes. *AGU Fall Meeting*, San Francisco, CA, USA.

- OOMMEN, T., BAISE, L.G., **GENS, R.**, PRAKASH, A. AND GUPTA, R.P., 2010. Applying Satellite Remote Sensing to Document Liquefaction Failures. *Seismological Research Letters*, 81(2): 253-283.
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- OOMMEN, T., BAISE, L.G., **GENS, R.**, PRAKASH, A., AND GUPTA, R.P., 2009. Documenting Liquefaction Failures Using Satellite Remote Sensing and Artificial Intelligence Algorithms. *AGU Fall Meeting*, San Francisco, CA, USA.
- PRAKASH, A., ANDERSON, M., BAISE, L., CSAPLOVICS, E., FOCHESTATTO, J., **GENS, R.**, GUPTA, R.P., KANE, D., MUMM, J., OKKONEN S.R., OOMMEN, T., SAHA, A., TROCHIM, E., WILSON R., AND WYATT, C., 2009. HypSIRI Preparatory Science at the University of Alaska Fairbanks. *Second HypSIRI Mission Science Workshop*, Pasadena, CA, USA.
- GENS, R.**, AND PRAKASH, A., 2009. Remote Sensing for Mapping Earth Surface Composition and Change. *Technical Session at the 43rd Alaska Surveying and Mapping Conference*, Anchorage, AK, USA.
- ATWOOD, D., DENNY, P., HOGENSON, H., DIXON, B. AND **GENS, R.**, 2008. MapReady: An Open Source Tool for the Utilization of SAR in Geospatial Applications *AGU Fall Meeting*, San Francisco, CA, USA.
- GENS, R.**, PRAKASH, A. AND LI, S. 2008. Mapping Deforestation In Parts Of The Amazon Forest Using JERS-1 SAR Images: Case Study For An Area North West Of Rondonia, Brazil *AGU Fall Meeting*, San Francisco, CA, USA.
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- GENS, R.**, 2008. Building and Experiential Learning Pathway for Information Extraction from SAR Data. *ISPRS Congress*, Beijing, China.
- GENS, R.**, BARKER, E. AND BACKSTROM, L., 2007. Making sea ice Motion Data From RGPS More Accessible. *AGU Fall Meeting*, San Francisco, CA, USA.
- LI, S., WURTZ, T. AND **GENS, R.** 2007. A Preliminary Study of Biomass Estimation of Boreal Forest in Alaska Using ALOS PALSAR Polarimetric Images. *AGU Fall Meeting*, San Francisco, CA, USA.
- PRAKASH, A., AND **GENS, R.**, 2007. Promoting Use of Remote Sensing Data and Technology through Polar Case Studies for Post-Secondary Education and Research. *AGU Fall Meeting*, San Francisco, CA, USA.
- GENS, R.**, AND BARKER, E. 2007. Promoting data accessibility for IPY research and education. *First International Circumpolar Conference on Geospatial Sciences and Applications*, Yellowknife, NWT, Canada.
- SARKAR, S., PRAKASH, A., AND **GENS, R.**, 2007. Detecting unique structures in early fall lake ice in Alaska North Slope using optical and SAR images, *AAAS Annual Meeting*, Anchorage, AK, USA.
- PRAKASH, A. AND **GENS, R.**, 2007. Remote sensing and GIS based Alaska mapping and monitoring studies: Results of UAF student projects. *Alaska Surveying and Mapping Conference*, Fairbanks, AK, USA.
- GENS, R.**, 2006. SAR Educational Resources From ASF. *AGU Fall Meeting*, San Francisco, CA, USA.
- GENS, R.**, PRAKASH, A. AND MCCLUNG, S., 2006. Polar Remote Sensing: A Web Resource to Promote the Use of Remote Sensing Data in Undergraduate Education and Research. *AGU Fall Meeting*, San Francisco, CA, USA.
- DENNY, P., HOGENSON, K. AND **GENS, R.**, 2006. Convert: Yielding Orthorectified SAR Imagery in GeoTIFF Format. *AGU Fall Meeting*, San Francisco, CA, USA.

- LI, S., BENSON, C., **GENS, R.** AND LINGLE, C., 2006. Motion patterns of glaciers in the eastern Wrangell Mountains, Alaska, seen on ERS-1 SAR Interferograms. *AGU Fall Meeting*, San Francisco, CA, USA.
- GENS, R.**, 2006. From SAR data to information: Status, trends and future. *ISPRS Mid-term Symposium "Remote Sensing: From Pixels to Processes"*, Enschede, the Netherlands. [Invited keynote address](#).
- GENS, R.**, PRAKASH, A. AND GUPTA, A., 2005. Explaining earth and space science concepts to middle school children through interactive web based stories. *2005 Joint Assembly*, New Orleans, USA.
- OOMMEN, T., PRAKASH, A., MISRA, D., **GENS, R.**, BANDOPADHYAY, S., NAIDU, S., AND KELLEY, J.J., 2005. Marine placer platinum prospects near Goodnews Bay, Alaska: GIS database design and preliminary analysis. *Alaska Geological Society 2005 Geology Symposium*, Fairbanks, AK, USA.
- GENS, R.**, 2004. Development of a Radarsat-1 interferometric baseline catalog. *Proceedings of IGARSS'04*, Anchorage, USA.
- GENS, R.**, TONIOLO, H., MCCARTHY, P., AND PRAKASH, A., 2004. Understanding Arctic River Systems: An Effort to Train Undergraduate and Graduate Students. *AGU Fall Meeting*, San Francisco, CA, USA.
- PRAKASH, A., **GENS, R.**, KELLEY, J., ALEXANDER, V., JOHNSON, L. AND YANOW, G., 2004. Space-based observations in the International Polar Year: Educational opportunities to strengthen the STEM pipeline. *Proceedings of IGARSS'04*, Anchorage, USA.
- GENS, R.** AND LABELLE-HAMER, N., 2003. Issues and challenges for standardizing level zero format for SAR data. *Proceedings of IGARSS'03*, Toulouse, France.
- NICOLL, J. AND **GENS, R.**, 2003. Development and Application of a SAR Training Processor. *Proceedings of IGARSS'03*, Toulouse, France.
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- GENS, R.**, JIROUSEK, M., GURITZ, R. AND CONNER, J., 2002. The Alaska DEM project: Repeat-geometry approach for generating accurate InSAR DEMs. *Proceedings of IGARSS'02*, Toronto, Canada.
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- VEKERDY, Z., PRAKASH, A. AND **GENS, R.**, 2000. Multimédia a távérzékelés oktatásában egy képfúziós oktatóprogram példájával. *HUNGEO 2000*, Piliscsaba, Hungary. (in Hungarian)
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- VEKERDY, Z., **GENS, R.** AND PRAKASH, A., 1999. Use of optical and radar imagery to estimate and monitor the quantity of oil storage tanks. *Proceedings of the Twentyfifth Annual Conference and Exhibition of the Remote Sensing Society*, Cardiff and Swansea, Wales, pp. 889-896.
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- GENDEREN, J.L. VAN AND **GENS, R.**, 1996. SAR Interferometry: Principles and research trends. *Proceedings of the GEOINFORMATICS'96 Symposium*, Wuhan, China, Vol. I, pp. 99-106.
- GENS, R.** AND GENDEREN, J.L. VAN, 1996. An approach to error propagation modelling of SAR interferometric data. *ESA Fringe'96 Workshop*, Zurich, Switzerland.
- GENS, R.** AND GENDEREN, J.L. VAN, 1996. Analysis of the geometric parameters of SAR interferometry for spaceborne systems. *International Archives of Photogrammetry and Remote Sensing*, 31(B2):107-110.
- HUURNEMAN, G., **GENS, R.** AND BROEKEMA, L., 1996. Thematic information extraction in a neural network classification of multi-sensor data including microwave phase information. *International Archives of Photogrammetry and Remote Sensing*, 31(B2):170-175.

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### Multimedia/web products

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- COOPER, G., ALABI, O., AWAD, A., **GENS, R.**, PRAKASH, A. AND WITTE, B., 2010. *Litter Retriever with a GPS Receiver*. Case Study Chapter in the Earth Exploration Toolbook ([http://serc.carleton.edu/eet/litter\\_gps/](http://serc.carleton.edu/eet/litter_gps/)).
- GENS, R.**, PRAKASH, A., O'CONNOR, C., COOPER, G., LI, S., MCGRAW, D., YOUNGMAN, E. AND MCAULIFFE, C., 2010. *Shrinking Forest - Growing Problem*. Case Study Chapter in the Earth Exploration Toolbook ([http://serc.carleton.edu/eet/shrinking\\_forests/](http://serc.carleton.edu/eet/shrinking_forests/)).
- PRAKASH, A., **GENS, R.** AND MCCLUNG, S., 2007. *Polar Remote Sensing: A resource for undergraduate education*. Rated as 'Outstanding' by NASA Science Mission Directorate Education Product Review Panel (<http://www.polar-remotesensing.alaska.edu>).
- PRAKASH, A., **GENS, R.** AND GUPTA, A., 2006. *Treasure Hunt in Alaska*. A web story introducing concepts of SAR to middle school children. Reviewed and approved by NASA Earth Science Enterprise Education Product Review Panel (<http://www.treasure-hunt.alaska.edu>).
- PRAKASH, A., NIELSEN, C., GUPTA, A. AND **GENS, R.**, 2004. *Alaska: A Bird's Eye View*. A website on remote sensing in Alaska for middle school children. Reviewed and approved by NASA Earth Science Enterprise Education Product Review Panel (<http://www.birds-eye-view.alaska.edu>).
- GENDEREN, J.L. VAN, **GENS, R.**, VEKERDY, Z., PRAKASH, A., CORNELIS, J., BOEKARTS, P., MUNTEANU, A., SAHLI, H., CHRISTOPOULOS, V., VEEN, B.S. VAN AND JELLEMA, H.W., 1998. *FUSETUTOR - A tutorial on remote sensing image and data fusion*. Multimedia tutorial, Version 2.0 (Enschede:ITC).
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