Remote Sens. 2015, 7, 11322-11323; doi:10.3390/rs70911322

OPEN ACCESS **remote sensing** ISSN 2072-4292 www.mdpi.com/journal/remotesensing

Comment

## On the Use of the ISBAS Acronym in InSAR Applications. Comment on Vajedian, S.; Motagh, M.; Nilfouroushan, F. StaMPS Improvement for Deformation Analysis in Mountainous Regions: Implications for the Damavand Volcano and Mosha Fault in Alborz. *Remote Sens.* 2015, *7*, 8323–8347

Andrew Sowter <sup>1,\*</sup> and Francesca Cigna <sup>2</sup>

- <sup>1</sup> Nottingham Geospatial Institute, University of Nottingham, Triumph Road, Nottingham NG7 2TU, UK
- <sup>2</sup> British Geological Survey, Natural Environment Research Council, Nicker Hill, Keyworth NG12 5GG, UK; E-Mail: fcigna@bgs.ac.uk
- \* Author to whom correspondence should be addressed; E-Mail: andrew.sowter@nottingham.ac.uk; Tel.: +44-115-82-327-65.

Academic Editors: Richard Gloaguen and Prasad S. Thenkabail

Received: 6 July 2015 / Accepted: 31 August 2015 / Published: 2 September 2015

Vajedian *et al.* [1] present an improved method for the derivation of deformation parameters using satellite Interferometric Synthetic Aperture Radar (InSAR) data. The method is a modification of the Small Baseline Subset (SBAS) method as implemented in the StaMPS (Stanford Method for Persistent Scatterers) software. The modification includes many steps including the filtering of the differential interferograms, integration with GPS data and advanced phase unwrapping "*to overcome a lot of short- and long-wavelength artifacts that are clearly visible in StaMPS results*" (*cf.* [1], p. 8331). The authors refer to this new approach as the Improved SBAS, or ISBAS, method.

Although the modified approach appears perfectly valid, the authors have unfortunately overlooked the fact that the ISBAS acronym is already well-established and has been used in over 20 publications since 2012, including journal papers, conference presentations and proceedings, abstracts, web pages and magazine articles. In these articles, ISBAS stands for "Intermittent SBAS" and, although it too is based upon a modification of the basic SBAS approach to differential interferometry, the similarity ends there.

The Intermittent SBAS method was conceived to improve the coverage of the SBAS method over non-urban classes and therefore is not at all comparable to the contents of the Vajedian *et al.* paper. We offer a wide selection of references below [2–8], each of which clearly identifies the ISBAS acronym as Intermittent SBAS. The first peer-reviewed journal [2] in this instance was in 2013 and so the use of the acronym certainly predates the Vajedian *et al.* reference by at least two years.

Although not wishing to criticize the excellent work contained in the Vajedian *et al.* paper, we do however express our concerns over the use of the ISBAS acronym as this will lead to confusion for the remote sensing community. Therefore, we would propose the adoption of an alternative acronym for the Vajedian *et al.* method and, with regard to [1], encourage amendment of the paper via a corrigendum.

## Acknowledgements

F. Cigna publishes with the permission of the Executive Director of the British Geological Survey (BGS), Natural Environment Research Council (NERC).

## References

- 1. Vajedian, S.; Motagh, M.; Nilfouroushan, F. StaMPS improvement for deformation analysis in mountainous regions: implications for the Damavand volcano and Mosha fault in Alborz. *Remote Sens.* **2015**, *7*, 8323–8347.
- 2. Sowter, A.; Bateson, L.; Strange, P.; Ambrose, K.; Syafiudin, M. DInSAR estimation of land motion using intermittent coherence with application to the South Derbyshire and Leicestershire coalfield. *Remote Sens. Lett.* **2013**, *4*, 979–987.
- 3. Cigna, F.; Sowter, A.; Jordan, C.J.; Rawlins, B.G. Intermittent Small Baseline Subset (ISBAS) monitoring of land covers unfavourable for conventional C-band InSAR: Proof-of-concept for peatland environments in North Wales, UK. *Proc. SPIE* **2014**, *9243*, doi:10.1117/12.2067604.
- 4. Rawlins, B.; Cigna, F.; Sowter, A.; GMEP Team. Monitoring changes in surface elevation of blanket peat and other land cover types using a novel InSAR processing technique. In Proceeding of the BSSS Society Annual Meeting, Manchester, UK, 3–4 September 2014.
- Winner 2014: Radar Constellation Challenge by Airbus Defence and Space & Hisdesat Winner & Copernicus Master. PUNNET—Land Stability Monitoring & Mapping. Available online: http://www.copernicusmasters.com/index.php?kat=winners.html&anzeige=winner\_airbus\_hisdes at2014.html (accessed on 30 June 2015).
- Bateson, L.; Cigna, F.; Boon, D.; Sowter, A. The application of the Intermittent SBAS (ISBAS) InSAR method to the South Wales Coalfield, UK. *Int. J. Appl. Earth Obs. Geoinform.* 2015, *34*, 249–257.
- Novellino, A.; Cigna, F.; Sowter, A.; Syafiudin, M.F.; di Martire, D.; Ramondini, M.; Calcaterra, D. Intermittent Small Baseline Subset (ISBAS) InSAR Analysis to monitor landslides in Costa Della Gaveta, southern Italy. In Proceeding of the International Geoscience & Remote Sensing Symposium (IGARSS), Milan, Italy, 26–31 July 2015; pp. 3536–3539.
- Tapete, D.; Cigna, F.; Sowter, A.; Marsh, S. Small BAseline Subset (SBAS) pixel density vs. geology and land use in semi-arid regions in Syria. In Proceeding of the International Geoscience and Remote Sensing Symposium (IGARSS), Milan, Italy, 26–31 July 2015; pp. 3353–3356.

 $\bigcirc$  2015 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).