

## Accepted Manuscript

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PII: S0377-0273(18)30288-9  
DOI: [doi:10.1016/j.jvolgeores.2018.08.018](https://doi.org/10.1016/j.jvolgeores.2018.08.018)  
Reference: VOLGEO 6440

To appear in: *Journal of Volcanology and Geothermal Research*

Received date: 13 July 2018  
Revised date: 23 August 2018  
Accepted date: 24 August 2018

Please cite this article as: C. Wauthier, B. Smets, A. Hooper, François Kervyn, Nicolas d'Oreye, Identification of subsiding areas undergoing significant magmatic carbon dioxide degassing, along the northern shore of Lake Kivu, East African Rift. *Volgeo* (2018), doi:[10.1016/j.jvolgeores.2018.08.018](https://doi.org/10.1016/j.jvolgeores.2018.08.018)

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**Identification of subsiding areas undergoing significant magmatic carbon dioxide degassing, along the northern shore of Lake Kivu, East African Rift**

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**Keywords**

Natural hazard; degassing; InSAR; East African Rift; modeling; hydrothermal system

**Key points**

- MT-InSAR reveals two subsiding areas along the northern shore of Lake Kivu
- Subsiding areas include significant CO<sub>2</sub> magmatic degassing areas
- Deflating reservoirs or pore pressure drop in porous layers are the most likely subsidence mechanisms

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