



Global-scale comparison of passive (SMOS) and active (ASCAT) satellite based microwave soil moisture retrievals with soil moisture simulations (MERRA-Land)

Amen Al-Yaari, Jean-Pierre Wigneron, Agnès Ducharne, Yann Kerr, Wolfgang Wagner, Gabrielle De Lannoy, Rolf Reichle, Ahmad Albitar, Wouter Dorigo, Philippe Richaume, et al.

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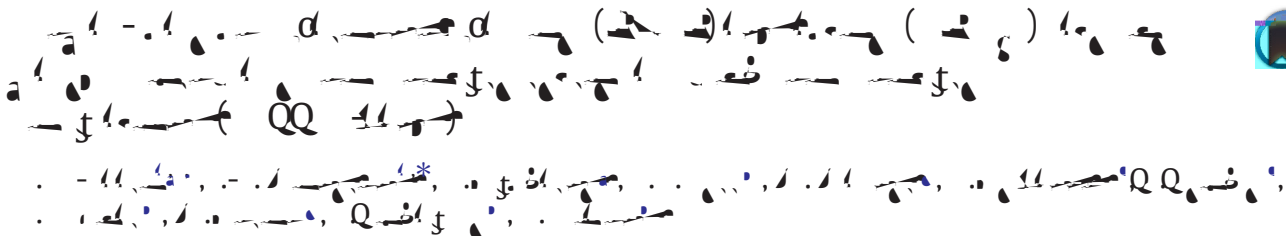
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ABSTRACT

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Q 5.5)

2010-2012 Q

R 0.70

QQ

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α: %

1. Introduction

(2010). *Journal of Music Therapy*, 53(1), 1-10.

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2. Materials and methods

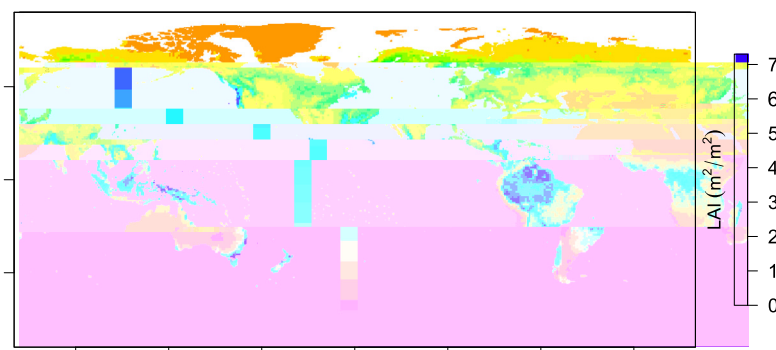
2.1. Surface soil moisture datasets

2.1.1. SMOSSL3

2. Materials and methods

2.1. Surface soil moisture datasets

2.1.1.1. *SMOSL3*

[illegible]

2.4. Comparison using Hovmöller diagrams (space–time distribution)

(— o —, 1949).

2.5. Comparison using triple collocation error model

() Q (1998)
 (2008)
 2010; Q 2013; & 2011;
 & 2010; (2011)
 2010–2012
 t $\theta(t)$ β ε

$$\theta_1(t) = \beta_1.\theta(t) + \varepsilon_1 \quad (6)$$

$$\theta_2(t) = \beta_2.\theta(t) + \varepsilon_2 \quad (7)$$

$$\theta_3(t) = \beta_3.\theta(t) + \varepsilon_3 \quad (8)$$

(5)

(6)-(8) $QQ \rightarrow \beta_1 = 1, \theta^* = \theta/\beta_1, \epsilon^* = \epsilon/\beta_1$

$$\theta_1^* = \theta + \varepsilon_1^* \quad (9)$$

$$\theta_2^* = \theta + \varepsilon_2^* \quad (10)$$

$$\theta_3^* = \theta + \varepsilon_3^* \quad (11)$$

(9)-(11) (q, 2013).

$$\varepsilon_1^{2*} = \langle (\theta_1^* - \theta_2^*)(\theta_1^* - \theta_3^*) \rangle \quad (12)$$

$$\varepsilon_2^{2*} = \langle (\theta_1^* - \theta_2^*)(\theta_2^* - \theta_3^*) \rangle \quad (13)$$

$$\mathcal{E}_3^{2*} = \langle (\theta_1^* - \theta_2^*)(\theta_2^* - \theta_3^*) \rangle \quad (14)$$

(6)–(8) (2010; & 2007; & 2010). (2012).

3. Results

3.1. Spatial Analysis of SSM retrievals at the global scale

4. $p < 0.05$, Q (23).

Latitude

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(R).

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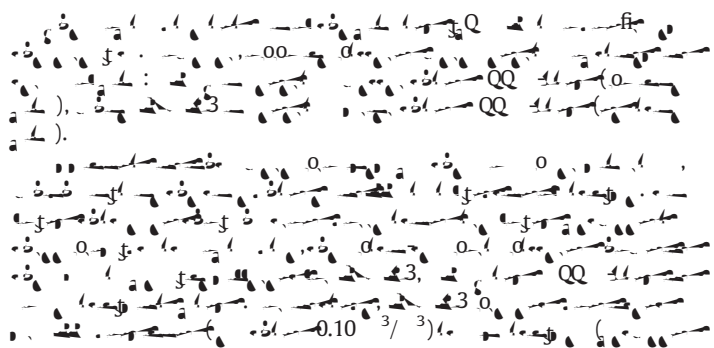
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0.5







Q. (2012). IEEE Transactions on Geoscience and Remote Sensing, 50, 1572–1586.

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