HARMONIOUS
uas for environmental monitoring

Advances in Environmental Monitoring with UAS

International Workshop

30th March 2022

University of Debrecen, Hungary
(MTA DAB székház)

Co-organized by

HARMONIOUS COST Action (CA16219)
Hungarian Academy of Sciences, Academic Commission Debrecen, Committee of Earth Sciences

HUNGARIAN ACADEMY OF SCIENCES

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Funded by the European Union

UNIVERSITY of DEBRECEN

ATK Agrártudományi Kutatóközpont

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Funded by the Horizon 2020 Framework Programme
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Program

09:30-09:50: László Bertalan, Brigitta Tóth – Welcome from local organizers
09:50-10:05: Salvatore Manfreda – The achievements HARMONIOUS COST Action
10:05-10:25: *Plenary talk:* Francesco Nex – Towards real-time UAS mapping: example, challenges and opportunities
10:25-10:55: *Plenary talk:* James Dietrich – Drones for River Monitoring, a ten-year perspective

10:55-11:20 Coffee Break

11:20-11:35: Eyal Ben-Dor – Summary of WG5: Harmonization of methods and results
11:30-11:50: Jana Müllerová – Summary of WG2: Vegetation status (part 1)
11:50-12:05: Antonino Maltese – Summary of WG2: Vegetation status (part 2)
12:05-12:20: Yijian Zeng – Summary of WG3: Soil moisture content
12:20-12:35: Dariia Strelnikova – Summary of WG4: River monitoring
12:35-12:50: Sorin Herban – Summary of WG1: UAS data processing + UAS demonstration (outside the venue)

12:50-14:30: Lunch break

Program

14:30-14:45: Gábor Papp – HungaroControl's Air-Ground-Air communication concept in order to enable UAVs' ecosystem
14:45-15:00: Géza Király et al. – UAS and their application in forest monitoring
15:00-15:15: Gábor Bakó et al. – HRAM: High Spatial Resolution Aerial Monitoring Network for Nature Conservation
15:15-15:30: Ferenc Kovács et al. – Application of UAS imagery in environmental research at the University of Szeged
15:30-15:45: Anette Eltner et al. – Hydro-morphological mapping of river reaches using videos captured with UAS
15:45-16:00: Ilyan Kotsev et al. – UAS-aided bedform and habitat mapping of Bolata Cove, Bulgarian Black Sea

16:00-16:30: Coffee Break

16:30-16:50: Lance R. Brady – UAS for Research and Applied Science in the United States Geological Survey
16:50-17:05: Kamal Jain et al. – Crop identification and classification from UAV images using conjugated dense convolutional neural network
17:05-17:20: Nicolas Francos et al. – Mapping Water Infiltration Rate Using Ground and UAV Hyperspectral Data - A Case Study of Alento, Italy
17:20-17:35: Martin Jolley et al. – Considerations When Applying UAS-based Large-Scale PIV and PTV for Determining River Flow Velocity
17:35-17:50: Adrian Gracia-Romero et al. – UAS plant phenotyping under abiotic stresses
17:50-18:05: Shawn C. Kefauver et al. – High-resolution UAV Imaging for Forest Productivity Monitoring

University of Debrecen,
Faculty of Science and Technology,
Institute of Earth Sciences

Geology
and Mineralogy

Meteorology

Landscape Protection
and Environmental
Geography

Physical Geography
and GIS

Social Geography and
Regional Development

Earth Sciences (BSc); Geography (BSc, MSc); Geoinformatics (MSc); PhD

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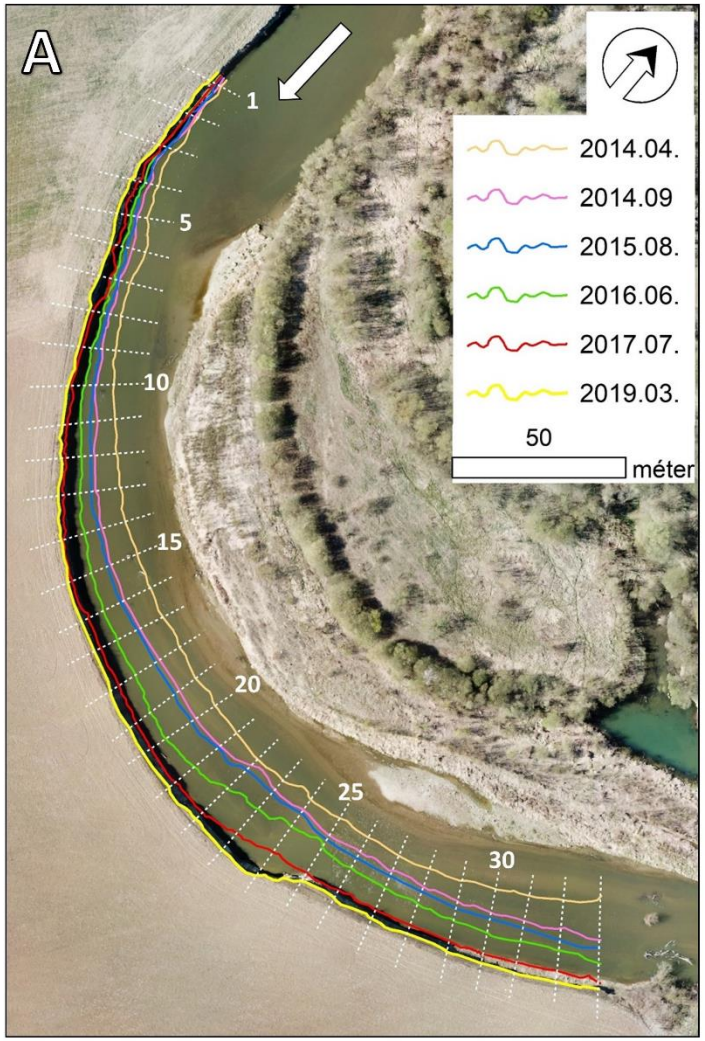

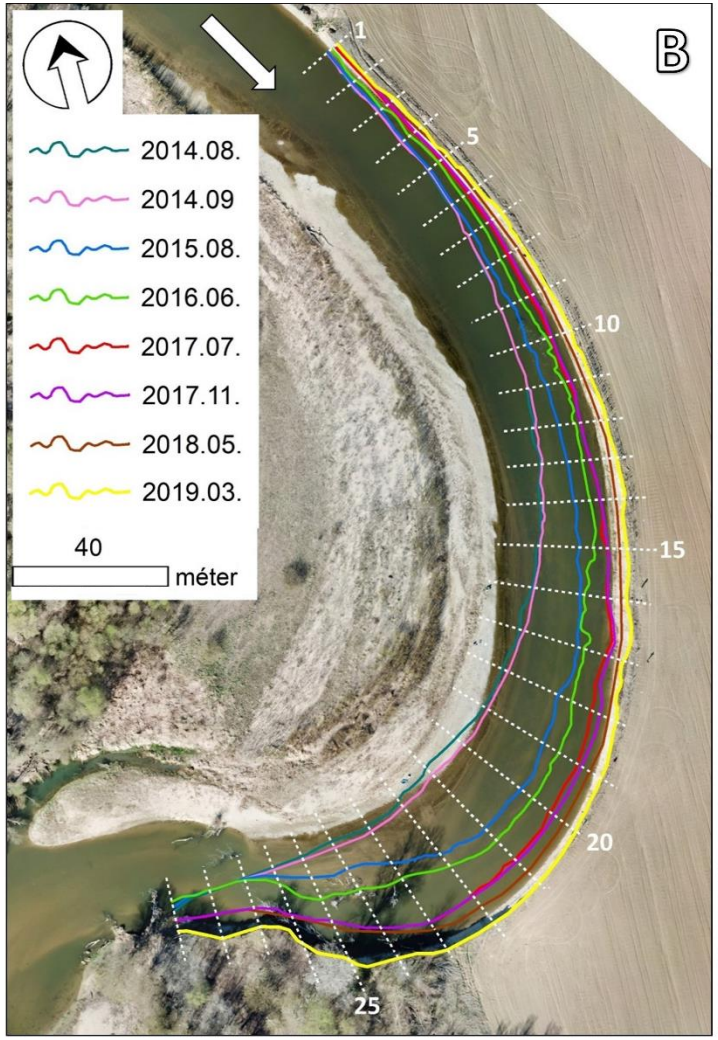

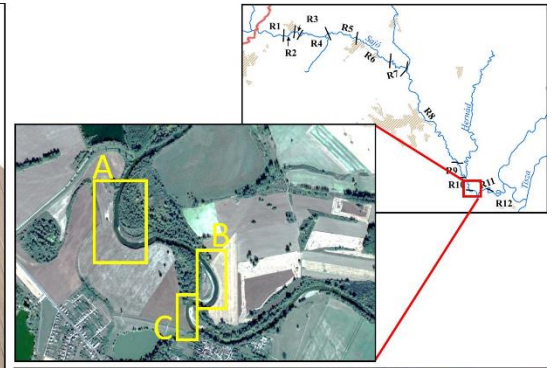

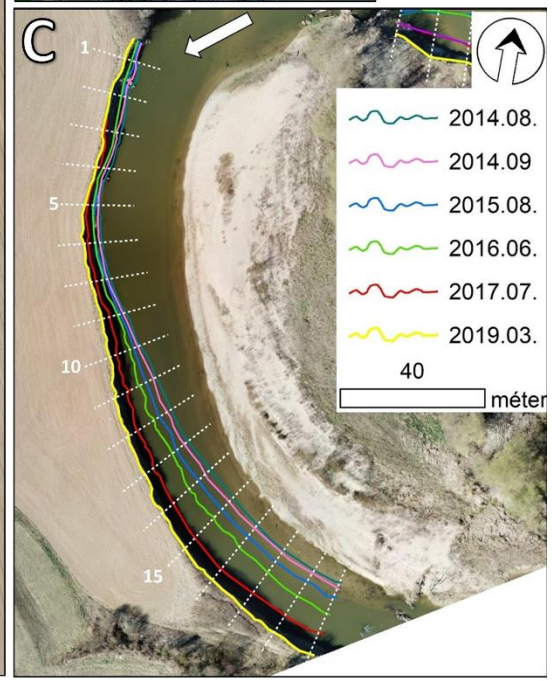

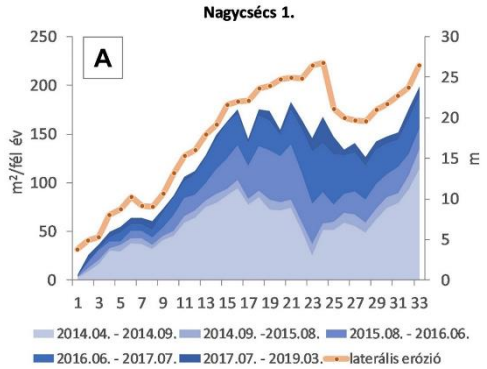

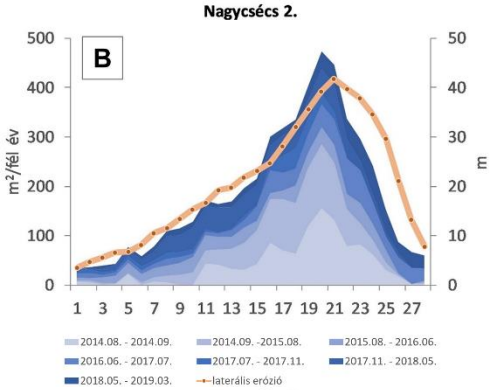

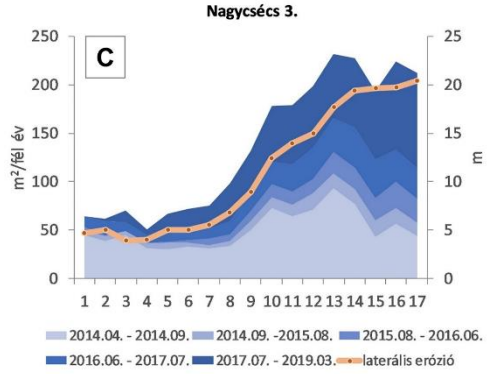

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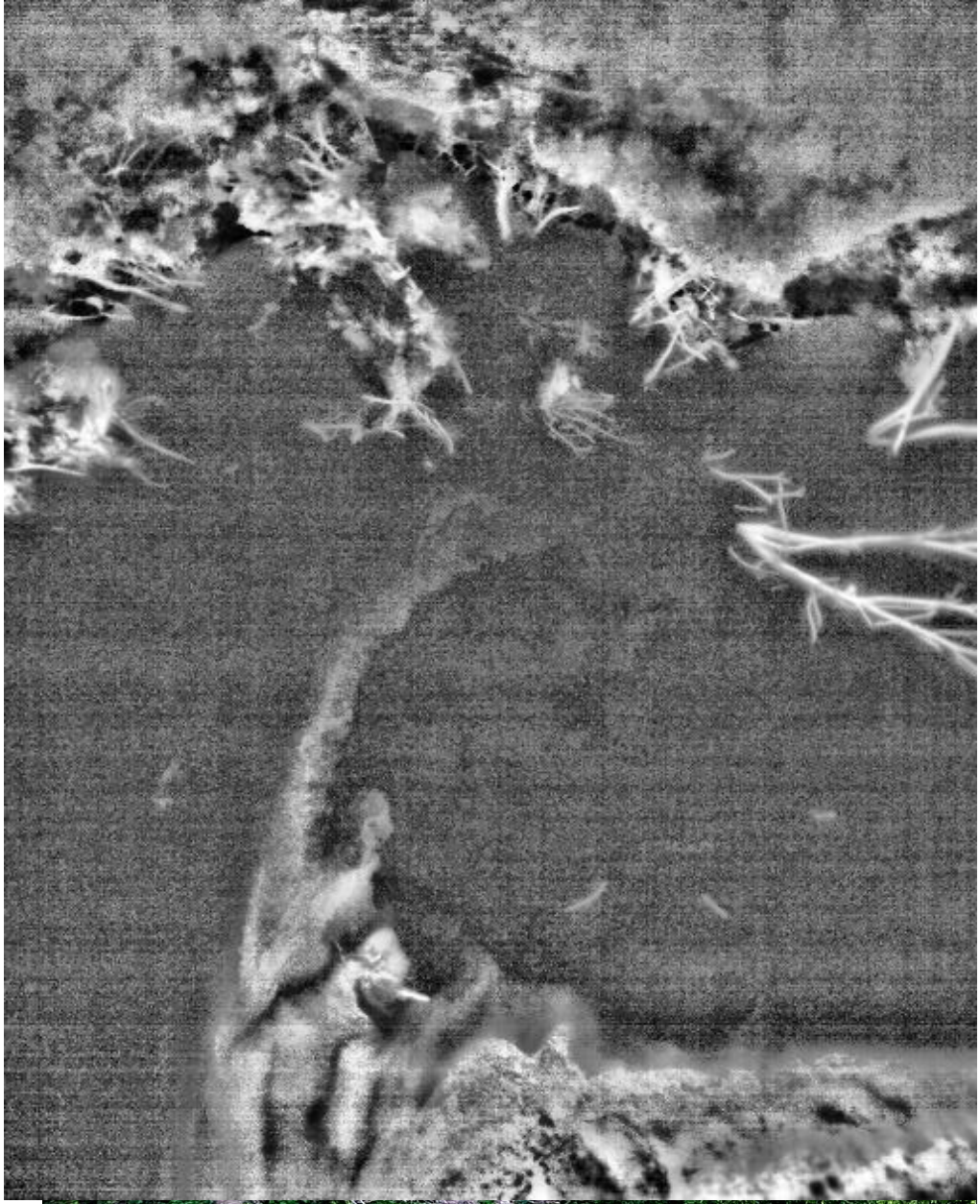

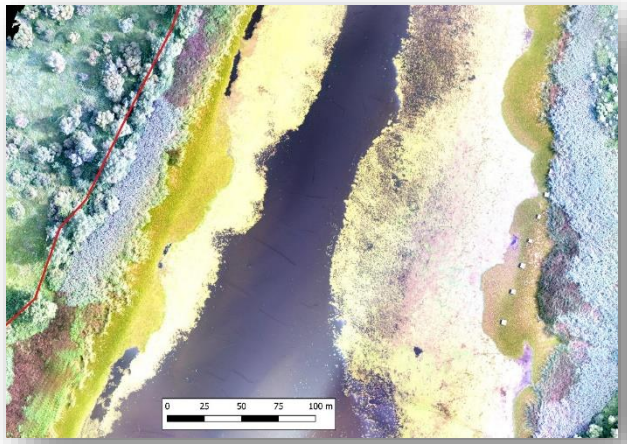

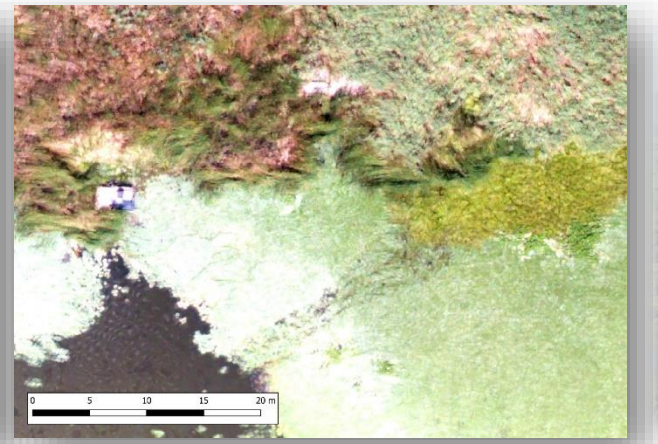

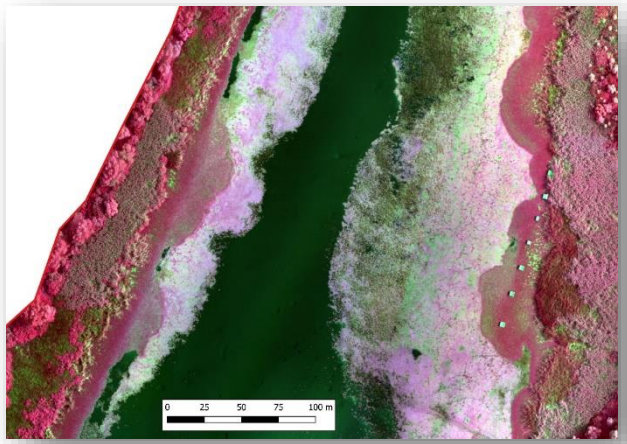

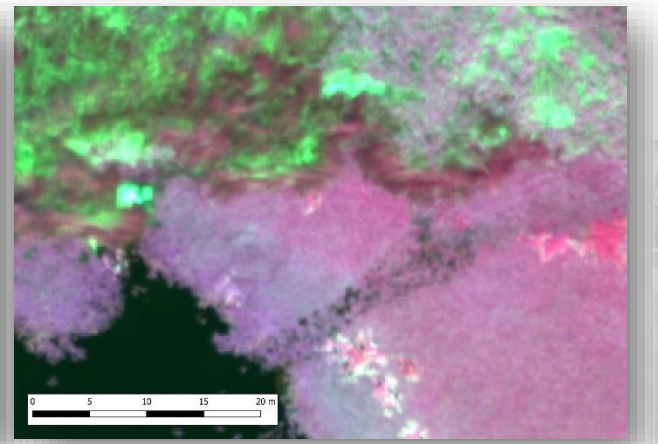

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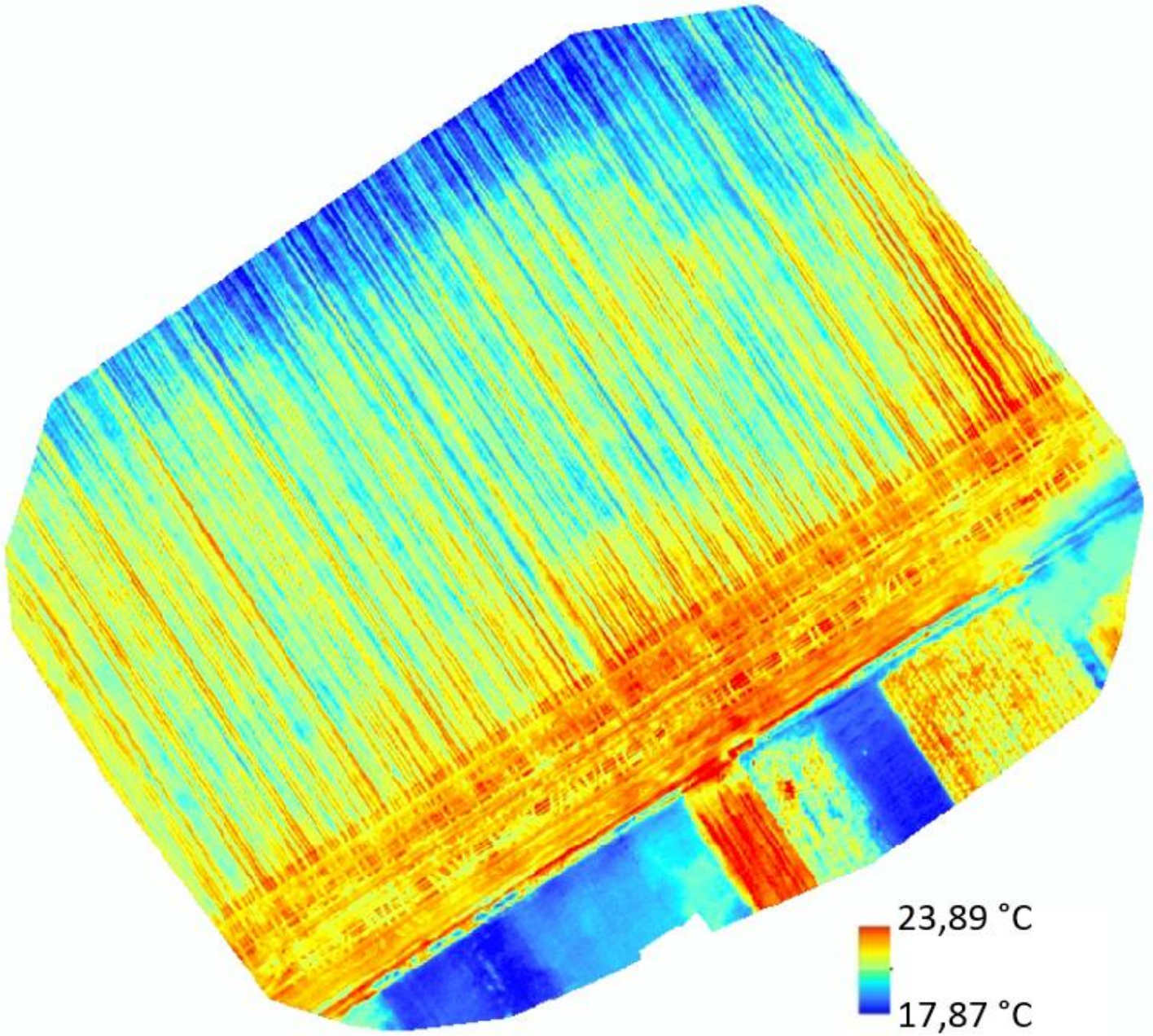

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