



ALOGO™

+ Interact to peak perform

Equiforum Belgium 2024

Lotte Kraus



ALOGO™

+ Interact to peak perform

Alogo Analysis is a Swiss company specialized in **equestrian analytics** providing **data services** founded in 2016 by **David Deillon**, a former Swiss Equestrian team professional, who has competed and ranked at the highest level (5*) for more than 10 years.

Alogo's objectives have always been to thread a path to improve **interaction between horses and riders** and to provide transparent decisions and enhance the understanding of Equestrian sport's beauty and challenges, including Horse Racing.

ALOGO™

SWISS TECHNOLOGY

- Established worldwide
- Scientifically Validated
- Strategic partnership with **POLAR**
- Worn by 5*, olympics and top riders
- Recommended by renowned vets
- Used by **13 national federations** internationally
- Supported by the FEI Eventing RMSG
- Scientific studies conducted around the world



The challenges are numerous with major ones being

- Lack of entertainment data during competition and racing
- Lack of ongoing personalized data
- Late evaluation of the horse's potential
- Lack of transparency on the horse's management
- Late detection of locomotion problems and injuries

Take early data-driven **decisions** rather than guessing

ALOGO MOVE LIVE



Special service dedicated to the federations, the vets or the show organizers and the medias.

We come to equip each horse with our device Alogo Move Pro during a training or a show. Depending on your wishes we can analyze the data together, show them in live on a big screen (like in [Dublin Horse Show's](#) puissance) or let you do the data analysis for your own scientific publications. **It can be combine with Alogo "ghost rider" videos!**

- Team Data Collection & analysis
- Event (Data in live to entertain the public on-site)
- Scientific studies
- Talkshow & articles

BAR TRIBUNE DE GENÈVE

Tribune de Genève

Tribune de Genève

ROLEX ROLEX ROLEX

devillard

BORY
immobilier

CREDIT SUISSE CREDIT SUISSE CREDIT SUISSE

ROLEX ROLEX



ALOGO Move Pro

The best performance sensor unmatched in the market

The only sensor in the market that analyzes the complete horse movement in 3D.



Using a proprietary AI Algorithm & a custom hardware technology to the nearest centimeter.

Our customers track record so far

Federations & Olympic riders

BEF - Great Britain

USEF - USA (New)

DRV - Germany

FNCH - Switzerland

ESNZ - New Zealand

Hong Kong

SRF - Sweden

FISE - Italy

Canada (trial)

Thailand (trial)

Belgium (trial)



FEI EVENTING

ALOGO™
* Interact to peak perform

Strictly confidential

WHAT ARE THE BENEFITS?



Health

- Prevent injuries by detecting irregularities.
- Manage work returning from an injury.
- Measure the work intensity.

Performance

- Better understand errors and mistakes.
- Share your personalized data with your coach.
- Manage your schedule and adapt your training.

Improvement

- Monitor the evolution of the horse and its technical progress according to the work performed.
- Improve and adapt your ride with technical and objective analysis.
- Validate your feel and choices while reassuring yourself.

Evaluation

- Evaluate the horse's technique and quality of specific movements.
- Determine the optimal parameters of your horse to increase his performance during the course and limit his efforts.
- Check the impact of the equestrian equipment on the horse's movement.

MOVE PRO

The way it works



Only one sensor needs to be placed on the girth and record the following information:

Partnership with Polar Electro for the Heart Rate monitoring add-on

Energy spent
Equilibrium
High def. GPS path
Strike power
Efficiency & Tiredness

Trajectories of strides & jumps
Speed & Cadence
Regularity
Weather
and up to 40 functionalities



Heart Rate & ECG

Ideal for every equestrian disciplines ✓



Strictly confidential

FEI

ALOGO™
+ Interact to peak perform

Scientifically
validated!

**Alogo Move Pro is officially authorized to be worn
in FEI competitions!**

Jumping, Dressage, Para-Dressage, Eventing &
Endurance

& also trusted by the
FEI Eventing Risk Management & steering group

**Sensor parameters were analyzed and
compared using the Qualysis system.**

with the collaboration:

The Department of Equine Sports Medicine in Zurich - **UZH**
(Prof. Michael Weishaupt)

The **Swedish University of Agricultural Sciences**
(Prof. Lars Roepstorff - SLU Uppsala and MSC Christoffer Roepstorff)

About the Scientific Validation

- The data from our unique Alogo Move Pro sensor was compared to that of the complete Qualysis™ system, a world reference in terms of equine locomotion analysis.
- The results shown an excellent accuracy of Alogo Move Pro and so validated officially the sensor scientifically by an experienced independent team of engineers, researchers and equine veterinarians.

Read the official publication



sensors

Submit to this Journal

Review for this Journal

Edit a Special Issue

Article Menu

Academic Editor

Angelo Maria Sabatini

Open Access Communication

Validation of Alogo Move Pro: A GPS-Based Inertial Measurement Unit for the Objective Examination of Gait and Jumping in Horses

by Kévin Cédric Guyard^{1,*}, Stéphane Montavon², Jonathan Bertolaccini¹ and Michel Deriaz³

¹ Information Sciences Institute GSEMI/CUI, University of Geneva, 1227 Carouge, Switzerland

² Veterinary Department of the Swiss Armed Forces, 3003 Berne, Switzerland

³ HES-SO/HEG Genève, 1227 Carouge, Switzerland

* Author to whom correspondence should be addressed.

Sensors 2023, 23(9), 4196; <https://doi.org/10.3390/s23094196>

Received: 14 March 2023 / Revised: 6 April 2023 / Accepted: 19 April 2023 / Published: 22 April 2023

2020

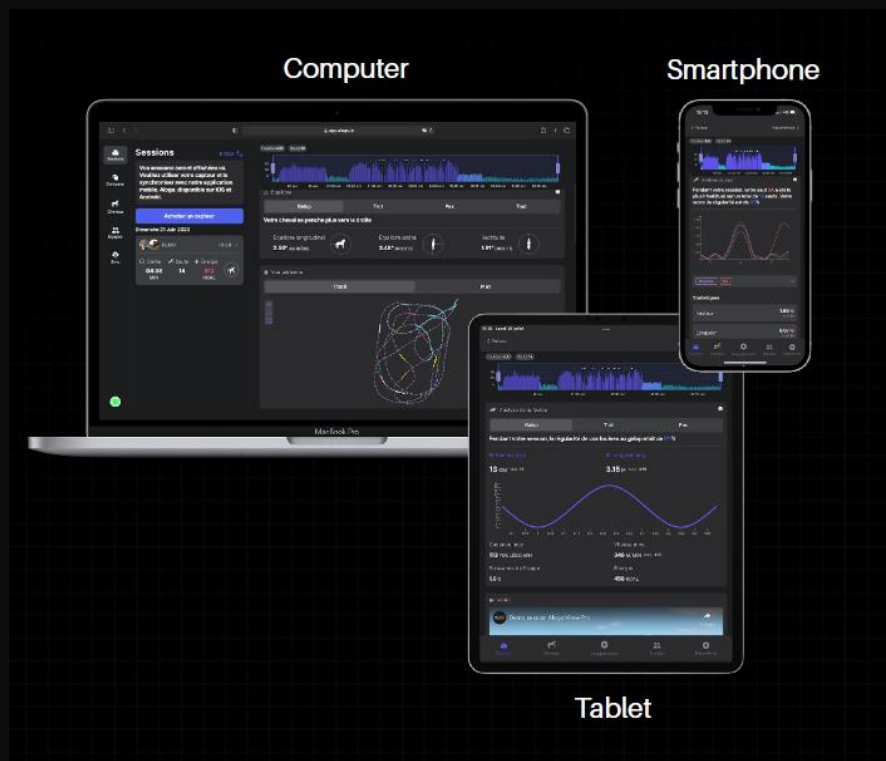
Distance (t)	HRF (1/2/3 (s))	J/D/C (Long)	St. Height x length - Ratio	Force (G)
7/7	NA 0.48	42 1.3 0.3	0.85 x 0.1	8.5
9/7	2.79 0.33	5.51 2.47 2 (1.20)	0.72 x 0.1	7.2
10/7	2.76 0.58	7.05 5.02 0	1.26 x 0.14	17.64
21/7	NA (SHOW)	NA	NA	NA
23/7	8.82 10.47	7.18 8.22 0	1.3 x 0.12	16.08
27/7	7.07 1.06	11.07 6.38 0.94	1.1 x 0.12	13.2
28/7	10.71 1.20	8.38 8.09 0	3.17 x 0.17	53.89
29/7	4.44 0.53	5.10 3.56 3.04 (1.43)	2.85 x 0.16	45.6
30/7	16 1.53	10.38 7.44 1	2.73 x 0.18	49.14
31/8	NA 0.32	5.33 1.07 -		
31/8	NA 0.46	10.35 1 -		

- Daily
 - Manual Documentation

- Regular
 - Disagreements

- Occasionally
 - Thorough Reporting

2023



Daily Usage

- General Health
- Training Load Monitoring
- Clinical Observation

Regular Usage

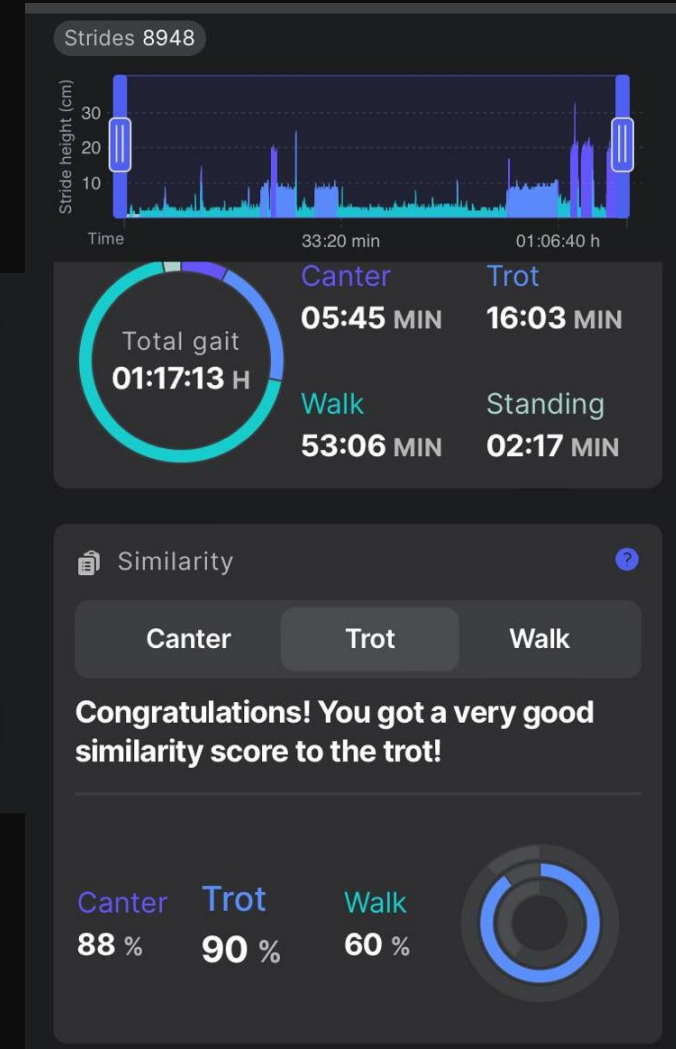
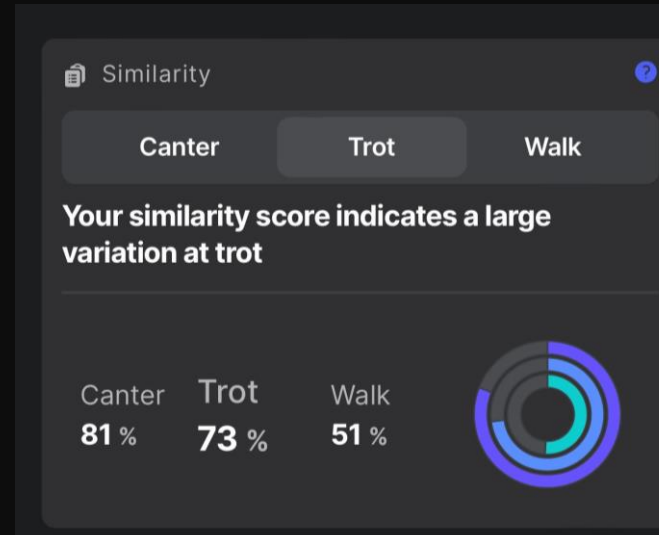
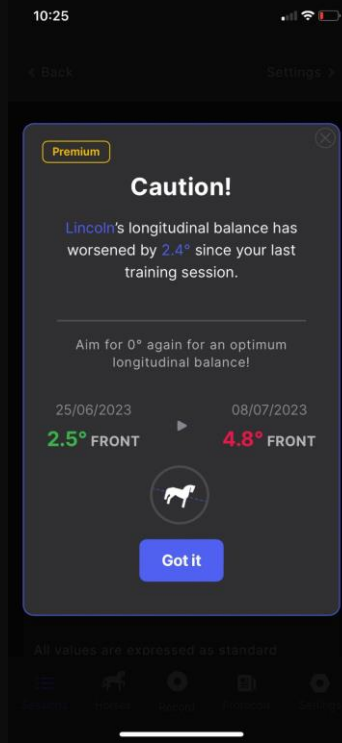
- Pre - Vet / Purchase Check
- Development Reporting

Occasional Usage

- Sharing Protocols between Riders
- Compliance of Vet – Paramedic - Rider

Injury Prevention

- Alert
 - Balance (Equilibrium)
 - Regularity Values
 - Monitoring
 - Fatigue
- = Validation of subjective concerns
- = Collaboration (Vet)
- = Guidance



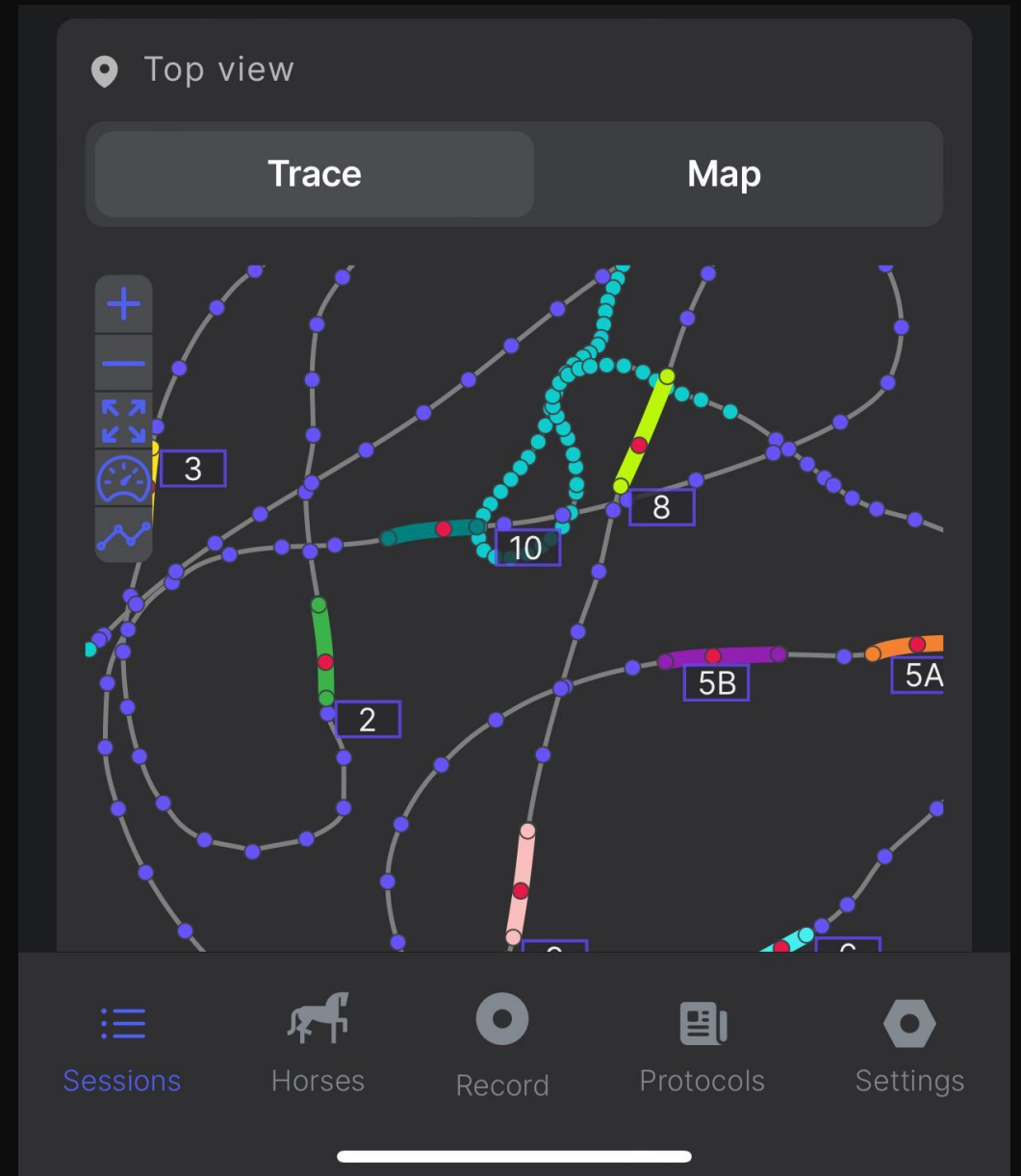
Horse / Rider Development

- Regularity Values: Canter, Jumps
- Stride Analysis
- Jumping Technique CX vs Showjumping
- Training Load Monitoring

= Better Communication

= Better Rider

= Better Horse Development



Reporting

Introduction Season 2023 report - Vivaldi



Information

This report was made to analyze the evolution of Vivaldi, 7yo jumping horse.

- He went from 1.20m to 1.35m
- He got injured in the summer 2023 & treated

The aim was to observe the changes in his locomotion & technique over the year. Show his strengths and weaknesses to work on to get ready for 2024!

Observations

The injury happened between June and July and had an impact on both of the following metrics:

- Drop in the **stride height** when Vivaldi started to be injured.
- Drop in the **stride length**
- Slightly increasing the stride strike power



BALANCES Season 2023 report - Vivaldi



Observations

The lateral balance
 → Vivaldi increased his imbalance to the left when he got injured (June-July). After his treatment, he regained his usual Data.
 → Overall, he is well balanced on each side.

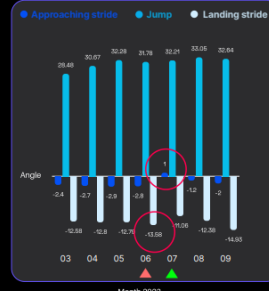
The longitudinal balance
 → He was better balance since his injury... (?)

Legend:

- To the right
- To the left
- To the back
- To the front



Around the jump : Longitudinal balance & take-off angle (in degree)



Observations

→ Vivaldi is usually around 2.5° front in the approaching stride but in July he went to 1° Back... It looks good (as we consider 1° Back as a very good balance) but in reality, it was **unusual** for this horse.

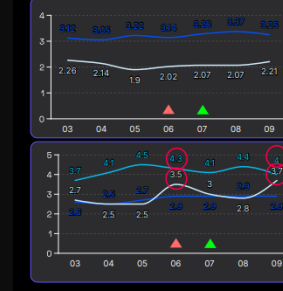
→ He is normally around 12.5° front in the landing stride. We observe that in July, he was also **less balanced to the front** in the landing stride. But here it looks like he did **not finish his gesture at 100%**: After being treated, he came back to more usual values.

→ In March and April, he jumped only until 1.25m, so he had a lower take-off angle than since May.

→ Right after his treatment, he **improved** his TakeOff angle (August).

- 09.06.2023 - Injury suspicion
- 21.07.2023 - Injury confirmed & treatment

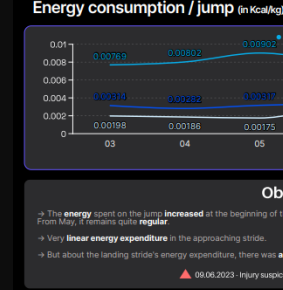
Approaching stride length



Observations

→ Remained quite **regular** during the season.

Strike power: Observations



→ A sudden **pike in June** in the landing stride's strike power. Maybe he started to get injured here. Be careful, in September, the trends were the same as the one in June!

→ He remained quite regular in his approaching stride's strike power all season long, no matter the jump height! - He seems to have a **lot of scope!**

Stride avg. Data Season 2023 report - Vivaldi



Information

In March & April, Vivaldi jumped 1.20-1.25m classes.

- From May, he started the 1.30-1.35m.

09.06.2023 - Injury suspicion
 21.07.2023 - Injury confirmed & treatment

Observations

→ His average speed is still below the official required one in 1.30m courses.

→ The duration of his strides was also impacted by the injury: Vivaldi made quicker strides right after the injury.



JUMP ANALYSIS Season 2023 report - Vivaldi



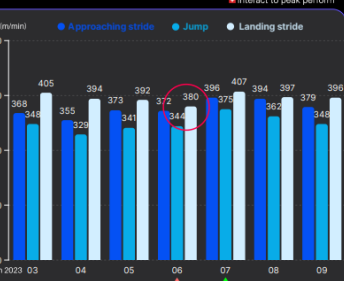
Observations

→ Vivaldi lost around 20-35 m/min between the take-off stride and the jump. But, he gains around 50 m/min in the landing stride.

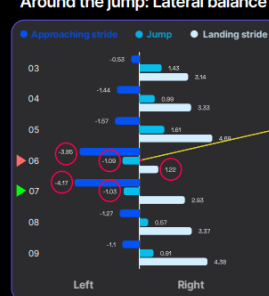
→ When he got injured (June), we observed that he had trouble in **reaccelerating** in the landing.

→ Since July, he has gone **faster** to the jump and in the landing stride!

- 09.06.2023 - Injury suspicion
- 21.07.2023 - Injury confirmed & treatment



Around the jump: Lateral balance (in degree)



Observations

→ In June and July, the approaching stride's lateral balance was **very unusual** as it suddenly went from around 1° left to around 4° left!

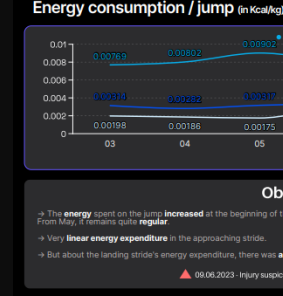
→ The jump's lateral balance went **from the right to the left** during these 2 months!

→ Vivaldi usually tilted more on the right in the landing stride (above 3 or 4° right), but again in last June and July, he was more around 1 or 2° right. (These are not bad Data but they were **not usual** for this horse)

→ Overall, we can note that when he began to be injured, Vivaldi carried his weight **more to the left**.

- 09.06.2023 - Injury suspicion
- 21.07.2023 - Injury confirmed & treatment

Energy consumption / jump (in Kcal/Kg)



Observations

→ The **energy** spent on the jump **increased** at the beginning of the season, probably because Vivaldi is going from 1.20m-1.25 to 1.30m classes. From May, it remains quite **regular**.

→ Very **linear energy expenditure** in the approaching stride.

→ But about the landing stride's energy expenditure, there was a **pike in June**. Again, it probably shows us that he was **injured** from here.



ALOGO™

+ Interact to peak perform

Thanks for your attention

Questions?

www.alogo.io

WebApp : <https://app.alogo.io>

David Deillon, CEO

+41 79 364 82 99

