

Motorcycle Racing Data

With MotoAmerica Data Engineer, Chloé Lerin



Host:

Roger Caddell

AiM Sports - National Training Manager



Guest:

Chloé Lerin

MotoAmerica Data Engineer



[aimsports.com](https://www.aimsports.com)

Tuesday June 22nd, 2021

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Chloé Lerin



- Race Data Engineer at MotoAmerica
- Motorcycle Track Day Coach
- Amateur Motorcycle Club Racer #147
- 10 Years in Internal Combustion Engine Research – Work with Engine Dynos
- Master's in Mechanical Engineering from University of Wisconsin-Madison
- Engineering Diploma from UTT, France
- Enthusiast Educational Video Maker



Chloé Lerin

Motorcycle Data Engineer



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Setting up a Solo 2 on a Motorcycle

- Most Solo 2's are Installed on the Upper Triple Clamp
- Location of Steering Damper will Affect Options
- Clever Mount Idea with a GoPro Plastic Mount



Track Detection

- Solo2's Purchased in the North America will have the USA Tracks Uploaded by Default
- Some Tracks may have Multiple Configurations (ex. NCM), the First Lap will Determine the Selection



Download Data to PC

Solo 2's are More Than Just Lap Timers!



WiFi Connection → No Cable Needed

GPS Derived Data Channels:

- GPS_Speed
- GPS_LatAcc
- GPS_LonAcc
- Track Position
- Lap Times

Sensor Derived Data Channels:

- Pitch, Roll, and Yaw (deg/s)
- Lateral, Inline, and Vertical (g)

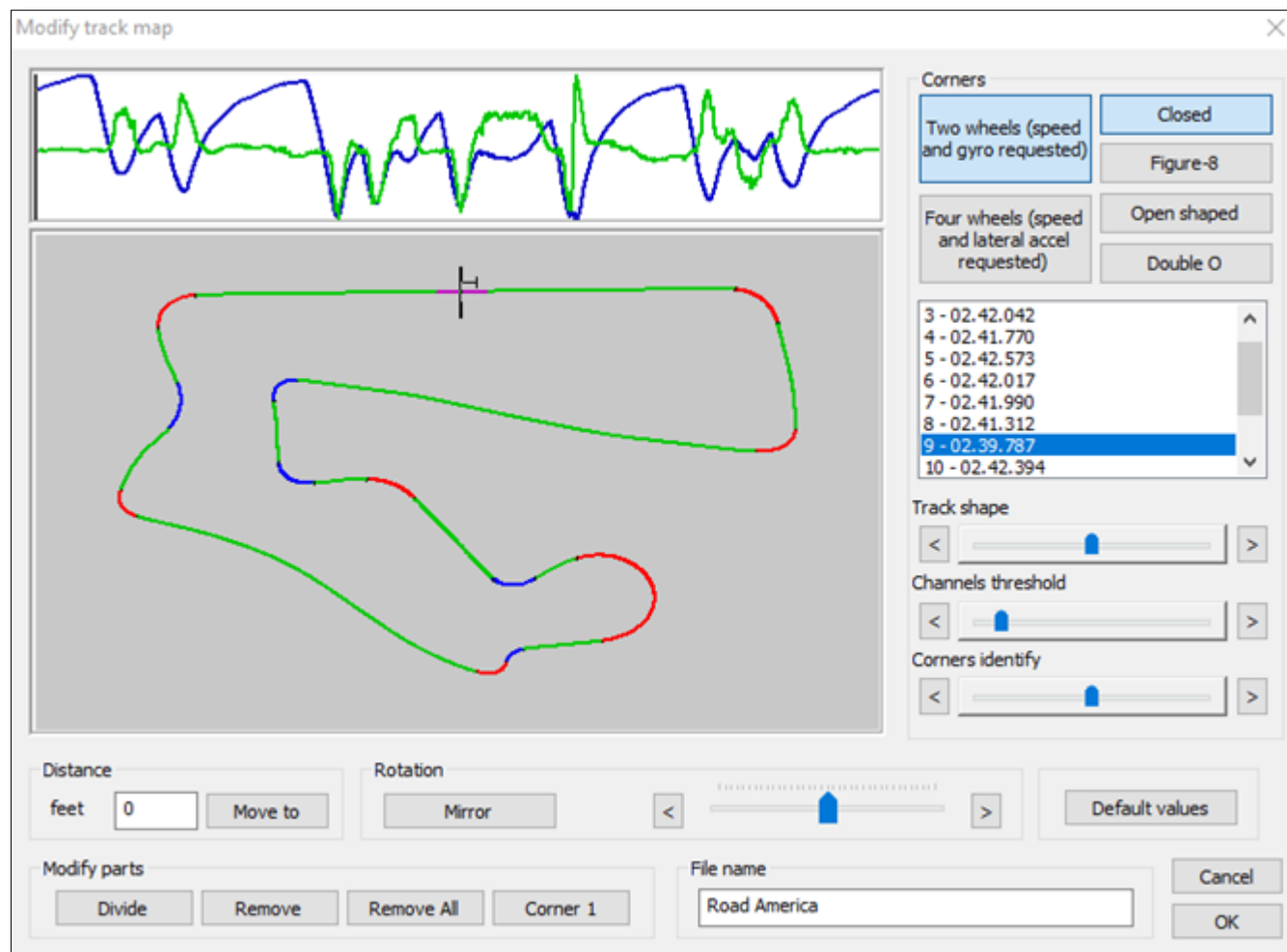
Math Channel Derived Channels:

- Lean Angle (deg)
- Accel_G, Brake_G, Corner_G (g)
- Corner Radius (ft)
- Etc.



Create A Track Map

Track Maps in Race Studio Analysis Provide Segments



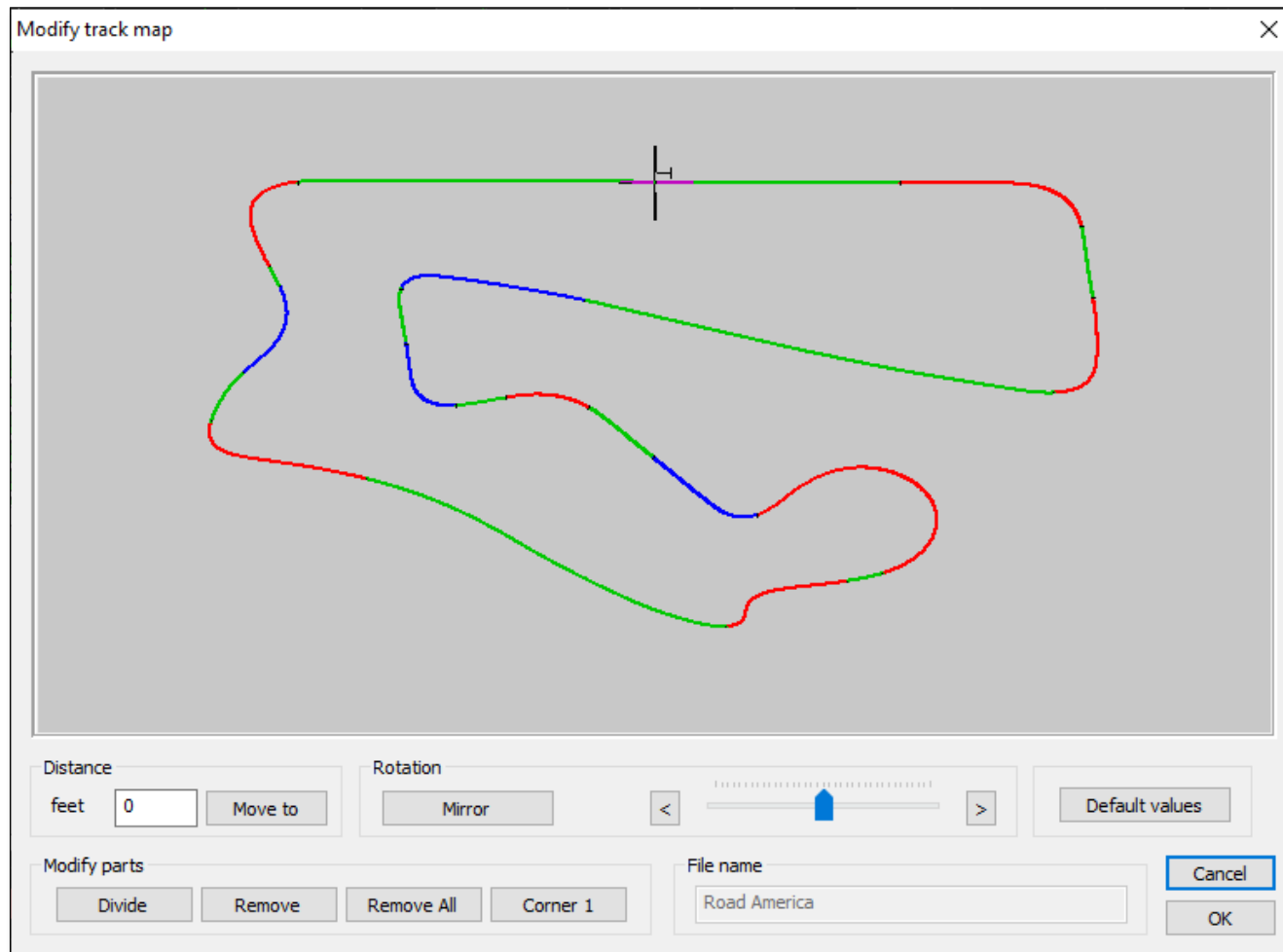
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Create A Track Map

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Create A (Better) Track Map

Track Maps in Race Studio Analysis Provide Segments



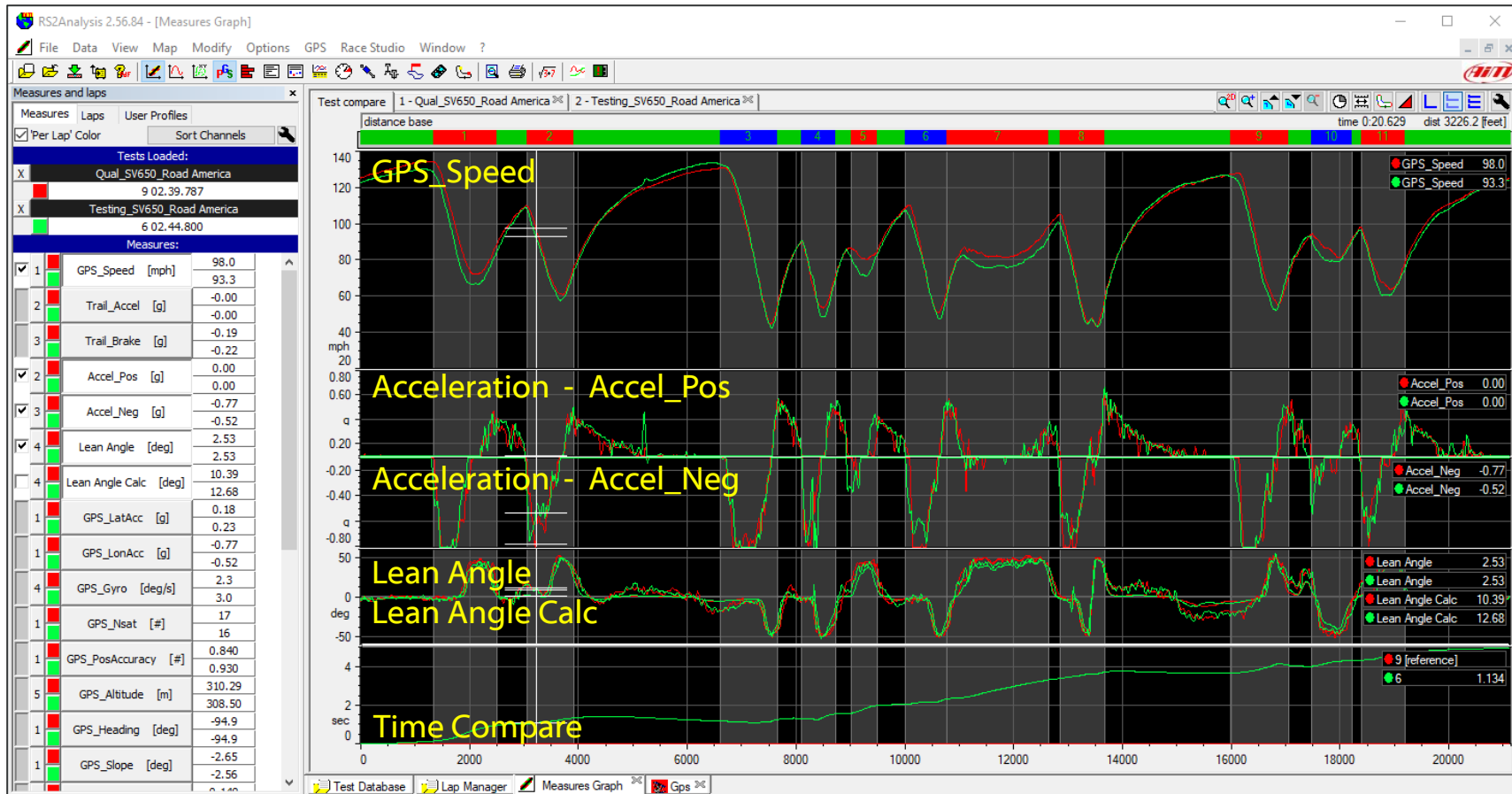
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Create A (Better) Track Map

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My User Profiles

What I Look at in Race Studio 2 Analysis From a Solo2



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My User Profiles

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Import/Insert Math Channels



Add Lean Angle (Plus More!)

Modify => Math Channels
or Math Channel Icon

Import Set
Available as a Download
June222021_Webinar_RS2MathChannels.amc

Build Your 'Measures' Window

'Per Lap Color' to Ease
Lap Comparison

'Checkbox' to View the
Y-Axis Scaling Values

'Mixed Views' Selector
Click on the Number to
Select Which Sub-
Window the Channel
Plot Will Appear (6 Max)

Measures and laps				
Measures		Laps	User Profiles	
☒	Per Lap Color		☐	Sort Channels
Tests Loaded:				
X	Testing_SV650_Road America			
		6 02.44.800		
X	Qual_SV650_Road America			
		9 02.39.787		
Measures:				
☒	1	GPS_Speed [mph]	131.7	
			128.7	
	2	Trail_Accel [g]	0.09	
			0.03	
	3	Trail_Brake [g]	-0.00	
			0.00	
☒	2	Accel_Pos [g]	0.10	
			0.00	
☒	3	Accel_Neg [g]	0.00	
			0.00	
☒	4	Lean Angle [deg]	1.38	
			1.27	
	4	Lean Angle Calc [deg]	4.99	
			4.17	
	1	GPS_LatAcc [g]	0.09	
			0.07	
	1	GPS_LonAcc [g]	0.11	
			0.04	
	4	GPS_Gyro [deg/s]	0.8	
			0.7	
	1	GPS_Nsat [#]	16	
			16	
	1	GPS_PosAccuracy [#]	0.930	
			0.914	
	5	GPS_Altitude [m]	304.95	
			303.54	
	1	GPS_Heading [deg]	19.9	
			20.5	
	1	GPS_Slope [deg]	-0.10	
			-0.40	
	1	GPS_SpdAccuracy [#]	0.170	
			0.180	
	1	LateralAcc [g]	-0.04	
			-0.04	
	1	InlineAcc [g]	-0.94	
			-0.95	
	1	VerticalAcc [g]	-0.34	
			-0.54	

'Sort Channels' List

Select the Channel to
Display/Plot

Motorcycle Racing Data

Build Your 'Measures' Window

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Live Race Studio Data Analysis



aimsports.com

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 **YouTube** www.youtube.com/aimdata



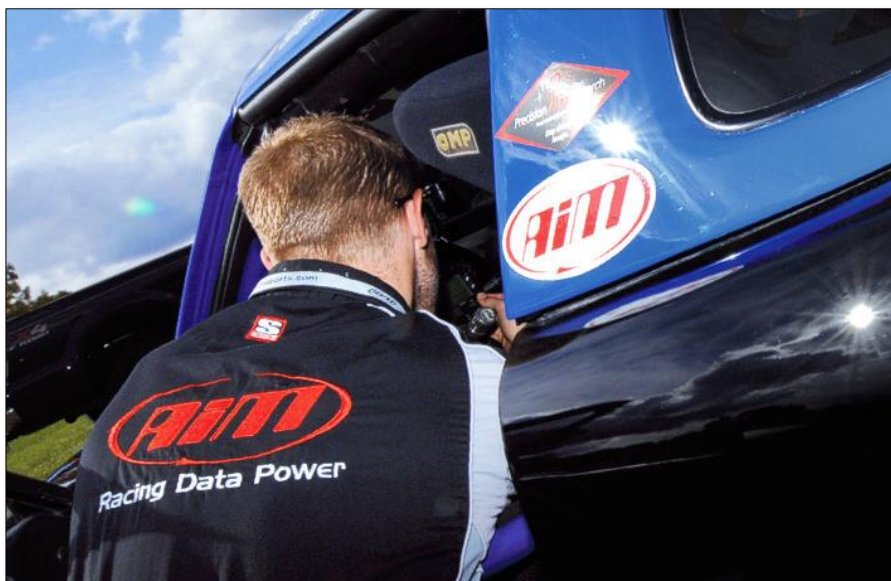
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Customer Support



AiM Sports Technical Support Staff Regularly
Attend Races and Other Events

Look For Us At An Event Near You
Or Call Us At **800.718.9090**



Customer Support

At An Event Near You!



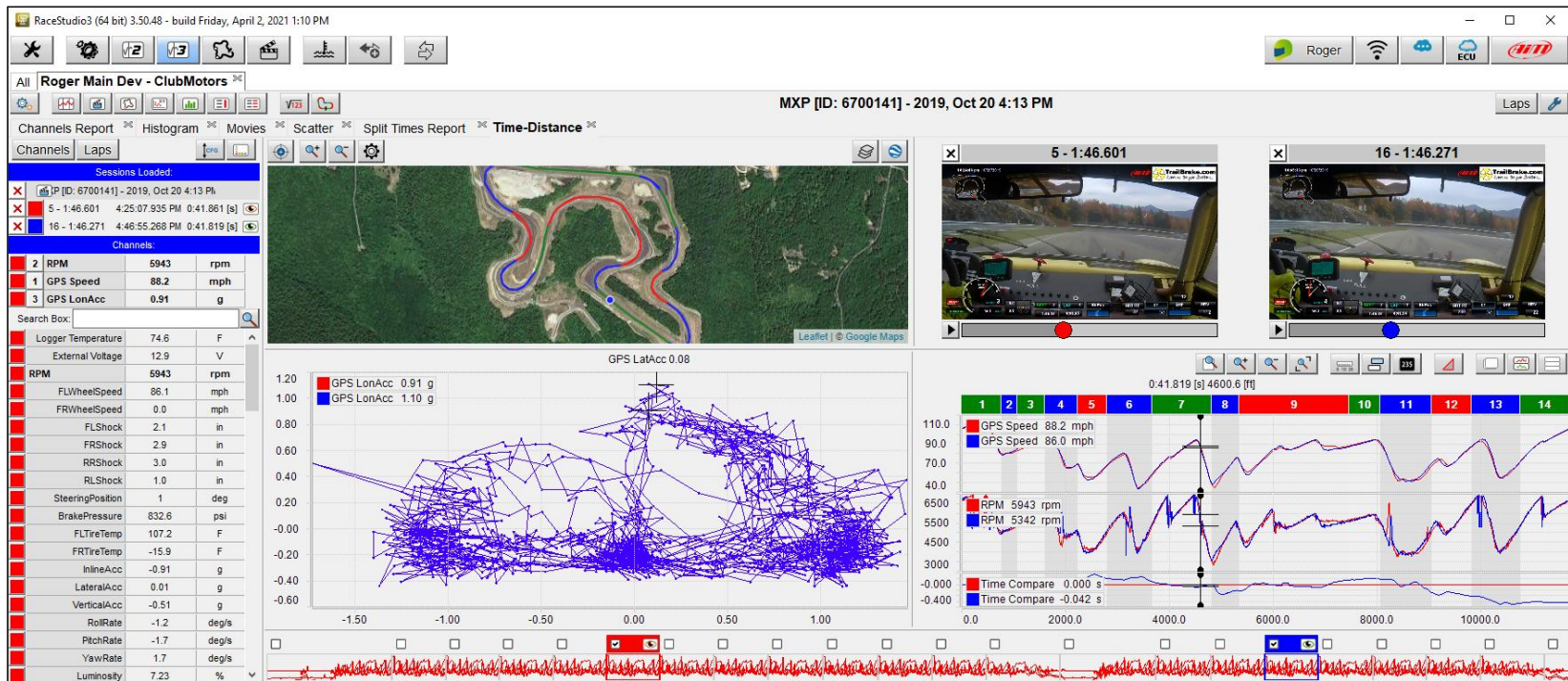
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If You Have Questions

Race Studio 3 Analysis

Beta Software - Update #8



Host:

Roger Caddell

AiM Sports - National Training Manager

Co-Host:

Emiliano Bina

AiM-Sportline - Software

Next Webinar: Tuesday June 29th, 2021 - 10:00am Pac/1:00pm East

Next Webinar Topic

Race Studio 3 Analysis - Update #8

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We Have Answers!
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Contact Information



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