## Scott Ahlman

# AHLMAR

### 29 Years of High-Performance Vehicle Dynamics, System Architecture & System Engineering

















### Education



- B.S. Mechanical Engineering, *University of Wisconsin-Madison* 
  - Co-Captain SAE Formula Car
    - 1993 FSAE Detroit World Championship 5<sup>th</sup> place in the Dynamic Events and 11<sup>th</sup> Overall



- M.S. System Design and Management, Massachusetts Institute of Technology (MIT)
  - System Architecture, System Engineering and Business Management focused
    - Thesis System Architecture definition methodology applied to the 2005 Ford GT supercar

## NASCAR Sprint Cup - Ford Performance Contract



- Roush Fenway Racing and Richard Petty Motorsports (RPM) NASCAR Sprint Cup 6 Seasons
  - Lead Vehicle Dynamics Engineer and Offensive Coordinator
    - Originated, developed and led the weekly Playbook for the teams' race car setups. We applied our vehicle dynamics modeling and analyses we developed.
      - (2) of (4) supporting Vehicle Dynamics Engineers from UW-Madison 2007 FSAE World Champions
  - Received the 2007 "Jack Award" (Jack Roush) Roush Fenway Racing's Team MVP
  - In six seasons we achieved:
    - (2) 2<sup>nd</sup> Places in the Championship (Carl Edwards)
    - (35) Wins
      - (11) in 2008 (9) by Edwards
      - (4) of (7) road course races in two seasons the only (2) Cup wins for Richard Petty Motorsports in their history
    - (178) Top Fives

#### Drivers Included:

- Carl Edwards
- Matt Kenseth
- Jamie McMurray
- Marcos Ambrose
- Greg Biffle



### The 2005-2006 Ford GT



- Co-led the Chassis System Architecture, Chassis Integration and Chassis Design Engineering from start to finish
- Led the System Engineering and Vehicle Dynamics
- Ride and Handling Development Engineeringincluding driving 200 mph through the banking





Chassis Engineering for M2K Motorsports
<u>World Record</u> Street Legal 2500 HP 2005
Ford GT <u>Standing Mile of 300.4 mph</u>

## IndyCar



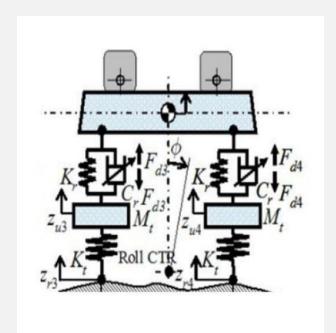
- Ahlman Engineering President and Chief Engineer
  - Ahlman Engineering led Honda Racing IndyCar Chassis/Vehicle Dynamics Modeling Architecture, Development and Application
  - (8) Ahlman Engineering Vehicle Dynamics and Software Engineers
  - Physics for Honda Racing's DIL Simulator for over 4 Seasons
  - Scott Ahlman led vehicle dynamics/car setup for the 2015 Honda Test Team with Andretti Autosport and Justin Wilson for three races
    - 2<sup>nd</sup> Place at Mid-Ohio in their 3<sup>rd</sup> race together

 Ahlman Engineering contributed to Multiple Indy500 Wins and Race Podiums



- Justin Wilson
- Ryan Hunter Reay
- Alexander Rossi
- Graham Rahal
- James Hinchcliffe
- Marco Andretti







## CART ChampCar



- Ford Racing Resident Vehicle Dynamics Engineer for Team Rahal in CART – 5 Seasons
  - Lead Vehicle Dynamics Engineer
    - Developed and applied Ford Racing vehicle dynamics modeling to improve our race cars
  - In five seasons we achieved:
    - (1) 2<sup>nd</sup> Place in the Championship (Kenny Brack)
    - (9) Wins
  - Drivers:
    - Bobby Rahal
    - Bryan Herta
    - Max Papis
    - Kenny Brack



## Ringbrothers ENYO



- Led the Chassis and Driveline System Architecture and Chassis Integration
  - Achieved 54% rear weight with this big front engine high-performance build
    - Specified the torque tube driveline architecture with the transmission at the rear
  - Bespoke chassis design and build with pushrod inboard suspension mated to our custom designed Ohlins TTX Coil-Overs
- The Ringbrothers' ENYO won the 2022 SEMA Battle of the Builders





