



# Michele Spinolo

## General information

I was born in Cesena (Italy) on 18/04/1980. Since I was in high school I set myself with the objective to become an FI engineer. Aerodynamics became my passion since I joined my first class at university. I enjoy the job I am doing, but feel I can grow and deliver more if I have been given opportunity.

Outside work my main interests are sciences, specially mathematics, physics and epistemology. I am passionate about photography and traveling, as these give me the chance to meet new people, make new experiences and discover different cultures.

I like sports: I play football at least once a week.

## Working Experience

### **AERODYNAMIC EXPERIMENTAL GROUP LEADER / WT PERFORMANCE CORRELATION AND METHODOLOGY; FERRARI FI; MARANELLO (MO) - JANUARY 2020 - PRESENT**

Following continuous development primary focus of my group changed in recent years into a wider structure still covering WindTunnel testing, analysis and reporting but with much more focus into Track/CFD/WT correlation, modeling and methodology development.

Topics covered ranges from standard correlation activities, merging understanding across the different aerodynamic environments, building models and improving performance metrics to guide aerodynamic development.

To achieve this collaboration across different groups/departments is key, therefore my involvement spans across a wide area from chassis design to vehicle dynamics.

### **AERODYNAMIC EXPERIMENTAL GROUP LEADER / PLANNING; FERRARI FI; MARANELLO (MO) - JANUARY 2014 - 2020**

As Aerodynamic Group Leader I was responsible for complete WT aero experimental testing, leading a group of talented engineers.

Although being in this role for 6 years, responsibilities of my group changed as a consequence of going through a learning curve started in improving testing methodology and following into using, while continuously improving, new testing techniques to increase aerodynamic understanding.

In the first 1-2 years focus was primarily in operational optimization, procedures and software tools development to improve efficiency. This has been achieved defining a process suiting the company needs, and built bespoke SW to track and review it through proper KPI definition.

Once a solid base was set and time made available reducing routinely work, as a consequence of improved efficiency, focus in developing methodologies to extract maximum understanding from experimental testing.

This is now covering a wide range of activities: WT Aero data analysis and reporting on daily basis, WT to CFD correlation, link of WT development with Vehicle dynamics, WT to Track correlation.

All this with the aim of having a continuous and quick loop of improvement to make sure WT development rate, combined aero / setup performance and general correlation across the three main aerodynamic environments is maximized.

### **AERODYNAMIC PROJECT LEADER; FERRARI FI; MARANELLO (MO) - SEPTEMBER 2011 - JANUARY 2014**

As an Aerodynamic Project leader I was in charge of coordinating both experimental and numerical aerodynamic development of an F1 car. This involved definition and development of new concepts, coordination of a group of engineers and CAD designers in order to match development rates defined by the Aerodynamic Principal Engineer in tight times.

For this reason tasks planning and resource allocation was an important part of my job.

This experience also provided the opportunity to work in close contact with mechanical engineers who are devoted to car design as I was in charge of wheels, drums and suspension developments for both ongoing and following year car.

**WIND TUNNEL R&D PROJECT LEADER; FERRARI F1; MARANELLO (MO) - FEBRUARY 2010 - SEPTEMBER 2011**

As Wind Tunnel R&D Project leader I am in charge of researching and developing new testing methodology, new tools and improve wind tunnel plant in order to increase aerodynamic development rate. Together with this I am in charge of defining development strategies by the usage of in-house developed tools based on game theory, multi-objective optimization, risk analysis and math modeling.

Wind Tunnel R&D Project leader refers directly to Head of Aero and manage the job scheduling of a fixed group plus floating resources (both CAD designers, Aerodynamic engineer or external suppliers) which are allocated depending on the project. Collaborations with chassis or track department occurs quite often as it is mandatory to have a good knowledge of the full car behavior to properly develop new methodologies.

**CONCEPT AERODYNAMICIST; FERRARI F1; MARANELLO (MO) - AUGUST 2009 - FEBRUARY 2010**

As a Concept Aerodynamicist I was required to pursue new aerodynamic concept design which consists in both short term and more complex projects, also involving structural F1 car layout. This was carried out with the help of CFD engineers and mechanical engineers who support the design and development process. I was part of a team responsible for development of new-year car and I reported directly to an aerodynamic team leader.

I was also in charge of WT test strategy definition and optimization which involves developing new testing methodologies, reducing test time and improving system reliability and accuracy.

**AERODYNAMIC TEST ENGINEER; FERRARI F1; MARANELLO (MO) - FEBRUARY 2007 - JULY 2009**

As an Aerodynamic test engineer I was responsible of running WT tests on Ferrari F1 Wind Tunnel, analyze data and designing new parts, supervising CAD engineers. I had the opportunity to intensively develop barge board system, wheels, drums, suspensions and bodywork. My direct report was an aerodynamic project leader.

**ROAD AND RACE CAR AERODYNAMIC DEVELOPMENT RESPONSIBLE; FERRARI S.P.A.; MARANELLO(MO) - OCTOBER 2005 - JANUARY 2007**

During this period I was responsible for aerodynamic development of road and race cars for Ferrari GT department. My role involved both team management (designers, model makers, CFD engineers, Aerodynamic test engineers), WT testing, WT models design, WT maintenance and cars layout design (radiators housing, etc...).

I had the opportunity to develop Ferrari California, Ferrari F430 Scuderia and the early development of Ferrari F458 Italia.

I was also in charge of F430 GT2 aerodynamic development. This project involved WT testing, CFD development, WT model design and development, engine-gearbox-fuel cooling system design and track tests. F430 GT2 is one of the most winning FIA GT championship cars ever.

**AERODYNAMIC TRAINEE; FERRARI S.P.A.; MARANELLO(MO) - APRIL 2005 - SEPTEMBER 2005**

My internship in Ferrari was devoted to road and race cars development both with the aid of CFD simulation and 33% scale WT tests. I joined the development of F575 GTC car for FIA GT1 Championship, and during this period I had the opportunity to intensively test this car in Ferrari 33% WT.

**Education**

September 1999 - March 2005

Alma Mater Studiorum, University of Bologna, Mechanical Engineering - 100 with Honors

June 2002 - September 2002

Von Kàrmàn Institute For fluid dynamics - Bruxelles (BE) - Short training program  
Design of an inductive coupled plasma Mini-Torch

September 1994 - June 1999

Liceo Scientifico (Secondary school with focus on sciences) "A. Righi" Cesena - 98/100

**Skills**

Good knowledge of Catia V5, Mode Frontier, Matlab, MS Office, Linux and Unix system. I used Ansys Fluent, Gambit, ANSA and Tgrid quite intensively in the past.

I have a strong mathematical background, especially focused on statistics, signal analysis and mathematical models creation.

I can speak, write and read English fluently.

