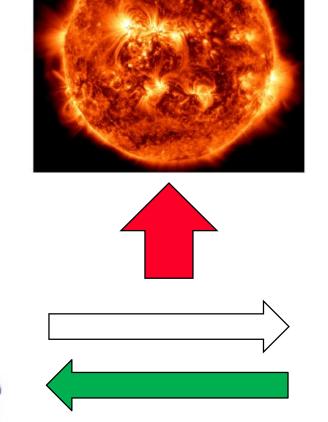
Introduction to Modern Astro-Plasma Physics

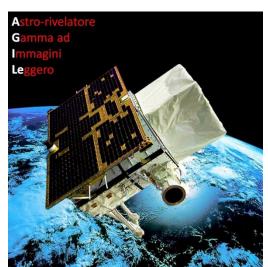
(a Groundbreaking Elective Course of Study)

Franco Paoletti

East Windsor Regional School District Hightstown, NJ (USA)

Bringing "Astrophysics" & "Plasma Physics" together for a better Understanding of our Universe





Introduction to Modern Astro-Plasma Physics - Dr. P.

Groundbreaking: "First Time" approved in a US Public School

An extract from the EWRSD HHS Course of studies:

Grade 12 - credits 2.5

Prerequisite: "B" or better in Physics Honors.

Corequisite: Calculus

- This is an elective course that does not count toward the state mandate 3 science courses.
- Plasma, the fourth state of matter, makes up more than 99% of the matter in the universe.
- Knowledge of the universe around us is acquired though the detection of the various types of radiation coming from the cosmos.
- Astrophysicists use a multitude of terrestrial telescopes and space satellite
 missions to survey the sky from a distance.
- Plasma physicists, instead, study laboratory plasmas to gain knowledge of the properties of this fourth state of matter right here on earth.

Groundbreaking: "First Time" approved in a US Public School

An extract from the EWRSD HHS Course of studies:

- •The course focuses in <u>identifying the points of cross-overlapping</u> between these two main branches of science providing a rationale on how this <u>mutual synergy</u> could lead to <u>unexpected great future discoveries</u>.
- •As part of the <u>laboratory experience</u>, students will also have the opportunity (*using the tools developed at SSDC*) to <u>remotely analyze data</u> from the <u>Gamma-ray AGILE Satellite Mission</u>, an award winning Space Mission funded by the Italian Space Agency.

Course Modular Structure allows for "Fast & AGILE" delivery

Vision and Major Goals:

- We kindly ask all of you here to contribute instructional material to build single modular units based on your specific area of expertise
- Assembled course material will be available to all AGILE Team members and contributors to provide opportunity for personal use, review, and update ... building the AGILE legacy!

Modular Units Must Contain:

- Lecture presentations
- Lab Activities (hands-on; virtual; cooperative learning)
- Problem solving & practice
- Review & homework and guidelines for further studies

and all this must be done @ pre-college level of understanding!

... and now ... a "Big Surprise" **ARE** YOU READY ???!!!

The "AGILE Forever" Mug





FRONT BACK

... To thank you in advance for all the encouragement and support we are sure you will all give to this endeavor!