

***RETIRED MEN'S ASSOCIATION OF GREENWICH, Inc. (RMA)
invites you to attend its meeting, on Wednesday, Sept. 11, 2013.
First Presbyterian Church, Lafayette Pl., Greenwich.***

DR. SYLVANIE WALLINGTON

***SHINING LIGHT ON "DARK MATTER"; UNDERSTANDING A
GREAT MYSTERY THAT KEEPS ASTRONOMERS UP AT NIGHT***



“It doesn't add up” is a common saying we all understand. But that question has special meaning for astronomers and cosmologists looking to understand the structure of the universe.

Over the last 80 years astronomers have observed that the motion of some stars in galaxies and other celestial behavior cannot be explained without there being much more total mass in the universe than we detect from observations. Things don't "add up" unless there is some mysterious "dark matter" that cannot be directly observed since it neither emits nor absorbs light. And this "missing mass" is not insignificant: it makes up about 85% of all the mass in the universe! As such, it plays a crucial role in our understanding of the structure and evolution of the universe.

Dr. Sylvanie Wallington will present in simple layman's terms the evidence for this dark matter. We will follow the scientific trail that led to our understanding of dark matter in the universe by examining how astronomers gather light from celestial objects, how they use that light to understand the motions of stars and galaxies, and how they calculate the gravity needed to explain those motions. Step by step, we will build the case for this mysterious substance, whose existence is widely accepted by the scientific community.

Dr. Wallington is a graduate of Princeton University and has a Ph.D. in astronomy from Harvard, where she specialized in the theoretical modeling of gravitational lenses. After a number of years of teaching she left the field and currently works as a web designer and programmer. She has lived in Old Greenwich with her husband and two children for more than a decade, during which time she has given a number of astronomy talks in the public schools.

RMA meetings are free and open to the public; no reservations are required. Please plan to arrive around 10:30 for our social break (coffee and cake), followed by our speaker at 10:45. Meetings are held at the First Presbyterian Church in Greenwich. For additional information, call Bernard Schneider, 203-698-2558; bgsesq@gmail.com.