

## DOCTOR JAMES SCALA Ph.D

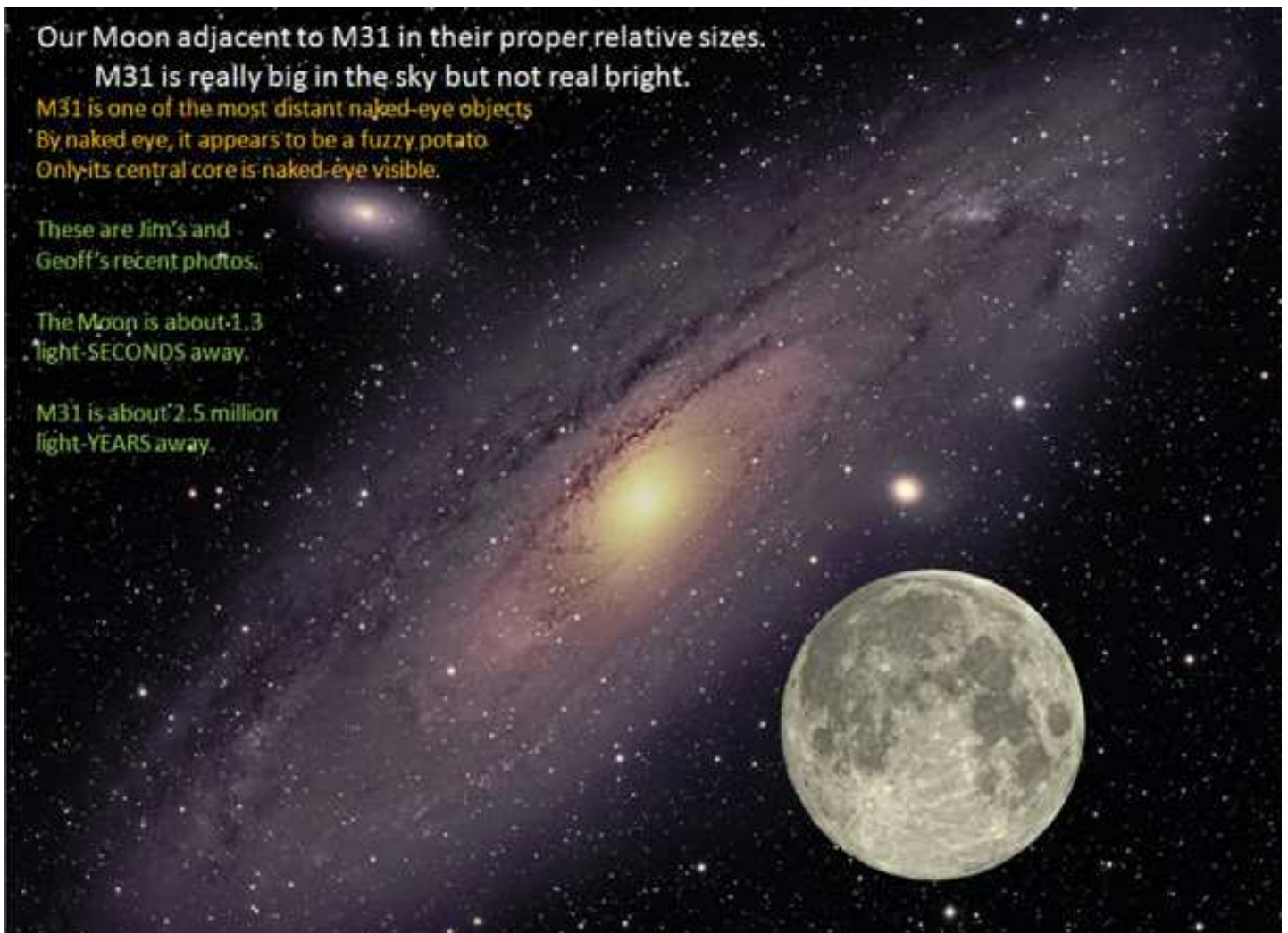
I met Jim when he was working as a Nutritionist in the UK, when for a period of time he was Chairman of the British Nutritional Society, and we have maintained our friendship since.

He has recently been unwell - a cyst in his spine which was removed in June this year - and he's now able to climb up to his Planetarium at the end of his garden !

He was regularly sending his pictures and these are the latest batch since he has recovered.

They are so awesome that I thought them worth sharing.

Their reproduction here does them no justice, but if you'd like to see Jim's pictures in the raw take a look at his web site at <http://home.comcast.net/~jscala2> where there's a whole host of his work.





On Friday, Physical Therapist cleared me to climb the 60 steps up to La Scala Observatory. So, my first image after clearance was last night's unusually large Moon. This image is 40 arc minutes square. There are 60"/degree, you can see this moon was over 33" in diameter. It won't be that large again until 2014.

Size aside, it was called the Rose Moon by the colonial Americans although it had many other names. Rose seems fitting since the Roses are in bloom.

The Moon does exhibit a subtle amount of color, so I also did this image in color. Let me know if you pick it up.

Jim Scala 23 06 13



## ANDROMEDA GALLAXY

Here is an image that a good friend of mine captured. Geoff Collins is a retired kidney transplant surgeon who has an observatory at lake Tahoe. He uses those dark skies to acquire deep sky images and skillfully brings out the most subtle detail.

This is his image of the Andromeda Galaxy. It's about 2.2 million light years away and looks about like our galaxy (the milky way) would look to someone there who has a telescope like Geoff's with his patience and skill. By any measure this is an exceptional image.

Now a few things about Andromeda. It's heading towards us and we'll collide in the distant future. But, don't worry because as dense as it appears, it and our galaxy are mostly empty space. So, it's unlikely that people living on earth at the time will have any collision problems even if their skies have more stars.

Now, just consider the distance. If there are people there who could somehow see people here, they would see earth as it was 2.3 million years ago. We'd be in their distant future and they'd see us as we were 2.2 million years ago. That's shortly after we came down from the trees.

Similarly any people we could see would be in our remote past.

As you enjoy Geoff's spectacular image think about these cosmic distances and all that time.

Jim Scala 15 09 13



M3 High Resolution

### HERCULES GLOBAL CLUSTER

Here is an image I'm proud of. It's the Globular Cluster in Hercules and was high in the summer sky, but is now sinking west in the evening. It's about 26 thousand light years away in our galaxy. Over one million stars are in this cluster. Imagine that our sun was situated in a cluster like this. We'd have bright sky and rather than light years away, stars would be light weeks away and closer.

If you look at about 1:00 O'clock on the globe you'll notice a dust lane. It's subtle, but shows that there's dust and it's even got some detail. Now, look at the lower left of the entire image at the small fussy spot that almost looks like a bow. That's a distant galaxy. If 25K light years for the cluster seems far, that galaxy is probably well over 25 million light years away.

I hope you enjoy this image as much as I did capturing it.

Jim Scala 08 09 13

M3 Wide Field







## SUNSPOTS ON THE SUN 6 JULY 2013

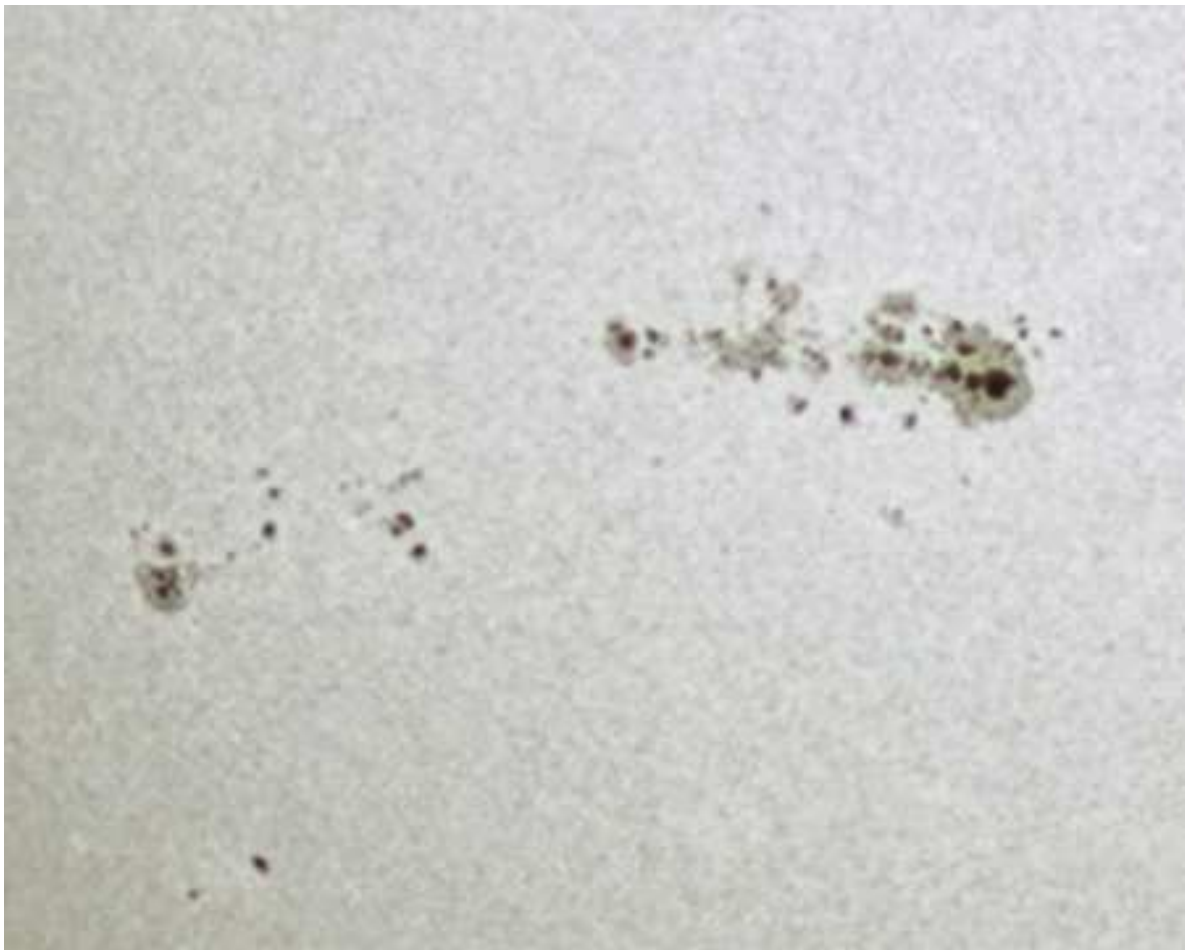
Yesterday afternoon I took a look at the Sun and saw a large group of Sunspots that were quite nicely lined up, so I captured this image.

Of all the spots the large one that's nearest the centre of the Sun is actually about 5.5 times the size of the earth.

That gives a nice perspective on the size of our Sun.

I include a slightly enlarged image of the spot group, so you can get a feeling for the detail in each spot.

Jim Scala 07 07 13



## **A few words about Jim and his family.**

### **Jim and Nancy Scala - by Jim Scala, March 2012**

Lafayette, California

#### **Professional Amateur Astronomer**

Lou Epstein, author of the best selling *Relativity Visualized*, introduced me simply, “ the only professional amateur astronomer I know” Do my astronomical activities confirm Lou's introduction?

I've been an amateur astronomer since age six and have read *Sky and Telescope* since 1949. I am past President of The Mt. Diablo Astronomical Society and a director emeritus of The Astronomical Society of The Pacific. Click on the article published in the Contra Costa Times and learn how my interest began.. It's an easy read and gives insight into child rearing..

You can access full detail of Jim' Planetarium by going to <http://home.comcast.net/~jscala2>

#### **Retired Nutritionist & Author**

At aged 77 I am a nutritional biochemist by education, an author and an amateur astronomer by choice. During my career I was privileged to be involved with projects that extended human frontiers, They included the Apollo program, three Mt. Everest expeditions, Sports Medicine Council Nutritionist of the US Olympic Ski Team for two Olympic games, and aviation's final frontier, the Voyager Flight. I was also invited to be on the advisory board of Walt Disney's EPCOT center;. Since I could bring my children to Walt Disney World; introduce them to Goofy, Donald Duck, Mickey and Minnie Mouse I was their hero. I received my B.A. from Columbia University as Korean Veteran, a Ph.D. from Cornell University as a US Public Health Service fellow, and did Post-Doctoral Studies at Harvard and the University of Indiana. In 1998, I proudly received an honorary Doctor of Humane Letters (L.H.D.) from Hofstra University. I authored or co-authored over 50 research papers on many aspects of nutrition and biochemistry and taught those subjects at several universities, including UC Berkeley and Georgetown Medical School.

#### **Nancy Scala: Artist**

Nancy is an accomplished watercolor artist; her paintings hang in some very important Bay Area homes. Her art reveals her love of nature; especially through the flowers and birds she captures with her brush. Nancy studied mathematics in college and worked as an actuary. We met while I was home on Christmas leave from the Air force in 1955 and were married in 1957 after my first year in college. We have four children, Jim, Greg, Nancy and Kim and six grandchildren, Julianna, Kyra and John Scala, Blaine Austin and Mason Wampler. Julianna is a pharmacology grad student at USC and Mason is six months old.

Nancy and I once owned and sailed a Ketch (53' LOA) out of San Francisco Bay, before we decided it was time to step ashore. Nancy is an excellent sailor and gourmet cook whether it's at home in her bright kitchen or in a sailboat galley.

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