



ASX MONTHLY NEWSLETTER

#4- NOVEMBER 2013

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STARTALK – NOV 21

RALF GELLERT WILL DISCUSS THE CURIOSITY MARS ROVER IN McLENNAN PHYSICAL ROOM 103 . DR. GELLERT PROVIDED US WITH THE FOLLOWING ABSTRACT.

ABSTRACT: LAST SUMMER THE NEWEST MARS ROVER CURIOSITY MADE A PICTURE PERFECT LANDING IN GALE CRATER TO INVESTIGATE THE HABITABILITY OF MARS IN THE PAST AND PRESENT. BUT WHAT DOES THIS MEAN IN DETAIL AND HOW DOES THE ROVER TACKLE THIS TASK? THE TALK WILL DISCUSS THE ROVER, ITS TOOLS AND SCIENCE INSTRUMENTS, HOW THEY WORK TOGETHER, AS WELL AS HOW THE ROVER IS OPERATED ON A DAY TO DAY BASIS FOR OVER A YEAR SO FAR. I'M THE PRINCIPLE INVESTIGATOR OF THE CANADIAN ALPHA-PARTICLE X-RAY SPECTROMETER (APXS), AN IMPROVED VERSION OF THE APXS INSTRUMENTS ON BOARD THE EARLIER MARS ROVERS SPIRIT AND OPPORTUNITY. OPPORTUNITY STILL OPERATES TO THIS VERY DAY OVER 9 YEARS AFTER LANDING. THE APXS INSTRUMENTS ANALYZE THE CHEMICAL COMPOSITION OF SOILS AND ROCKS AND CONTRIBUTE TO THE OVERALL FINDINGS OF ALL MISSIONS. APXS DATA ALLOW TO CONNECT THE DIFFERENT LANDING SITES TOGETHER TO GET A GLOBAL VIEW OF HOW MARS DEVELOPED SOME 3-4 BILLION YEARS AGO. ALL THE MISSIONS SHOW THAT WATER, ONE OF THE KEY INGREDIENTS NEEDED FOR HABITABILITY, PLAYED A MAJOR ROLE IN MARTIAN HISTORY. THE ROVERS FOUND VARYING CONDITIONS, ACIDIC AND RECENTLY MORE NEUTRAL WATER THAT COULD SHED LIGHT ON THE QUESTION, IF LIFE COULD HAVE DEVELOPED ON MARS AROUND THE SAME TIME IT DID ON EARTH.

THE STAR SPOT

CHECK OUT

STAR SPOT'S LATEST INTERVIEW, WHERE MCGILL PROFESSOR MATT DOBBS DISCUSSES DARK ENERGY! ABOUT THE STAR SPOT, FROM THEIR WEBSITE:

THE STAR SPOT, WITH JUSTIN TROTTIER, IS A SPACE THEMED PODCAST AND RADIO SHOW FOCUSING ON ALL ASPECTS OF ASTRONOMY AND SPACE EXPLORATION. EPISODES FEATURE INTERVIEWS WITH GUESTS OF WIDE-RANGING BACKGROUNDS: SCIENTISTS, ENGINEERS, EDUCATORS, ARTISTS, POLITICIANS, AND BUSINESS PEOPLE. TOPICS ARE SIMILARLY BROAD, FROM THE LATEST SPACE MISSION TO HOW THE UNIVERSE BEGAN, FROM WHY HUMANS EXPLORE SPACE TO HOW WE CAN MAKE SPACE EXPLORATION ECONOMICAL. THE SHOW ALSO INCLUDES A SHORT NEWS SEGMENT CALLED CURRENT IN SPACE, BRINGING YOU REPORTS ON THE LATEST HAPPENINGS AND DEVELOPMENTS THAT MAY BE OF INTEREST TO THE SPACE ENTHUSIAST.

FIRST DUNLAP PRIZE

THE DUNLAP INSTITUTE HAS ANNOUNCED A NEW AWARD, THE DUNLAP PRIZE, TO BE FIRST AWARDED IN MARCH 2014.

FROM DUNLAP'S WEBSITE:

THE DUNLAP PRIZE WILL BE AWARDED IN RECOGNITION OF AN INDIVIDUAL WHOSE REMARKABLE ACHIEVEMENTS RESONATE WITH THE DUNLAP INSTITUTE'S GOAL OF EXCELLENCE IN ASTRONOMY AND ASTROPHYSICS. THE AWARD WILL REFLECT THE INSTITUTE'S VISION FOR SHARING SCIENTIFIC DISCOVERY WITH THE PUBLIC, TRAINING THE NEXT GENERATION OF ASTRONOMERS, AND DEVELOPING INNOVATIVE ASTRONOMICAL INSTRUMENTATION TO ENABLE BREAKTHROUGHS IN OBSERVATIONAL RESEARCH.

IN CONJUNCTION WITH AWARDING THE PRIZE, THE INSTITUTE WILL HOST DISTINGUISHED LECTURES BY THE PRIZE WINNER, BOTH TECHNICAL TALKS AND FOR THE GENERAL PUBLIC.

THE INAUGURAL DUNLAP PRIZE WILL BE AWARDED TO DR. NEIL DEGRASSE TYSON IN RECOGNITION OF HIS COMMITMENT TO PUBLIC OUTREACH AND EDUCATION.

THE PRIZE CEREMONY WILL TAKE PLACE ON THE AFTERNOON OF FRIDAY, MARCH 21ST, 2014, AT THE UNIVERSITY OF TORONTO WITH INVITED GUESTS IN ATTENDANCE. THE CEREMONY WILL BE FOLLOWED BY A FREE PUBLIC LECTURE BY DR. TYSON IN THE U OF T'S CONVOCATION HALL ON FRIDAY EVENING.

COMET ISON

THIS THE LONG-AWAITED COMET ISON HAS JUST BECOME
VISIBLE WITH AMATEUR EQUIPMENT IN THE EARLY MORNING
TORONTO SKY! ISON WAS FIRST OBSERVED IN SEPTEMBER
2012,, AND HAS BEEN THE SUBJECT OF CONSISTENT MEDIA
ATTENTION. ITS CLOSE ENCOUNTER WITH THE SUN SHOULD
MAKE IT INCREASINGLY BRIGHT NEAR VIRGO IN THE EARLY
MORNING THIS MONTH AND NEXT. THE TORONTO SUN
REPORTS THAT IT SHOULD BECOME VISIBLE TO THE NAKED EYE
BY DECEMBER. MEANWHILE, KEEP AN EYE OUT FOR ITS
SURPRISING RIVAL, COMET LOVEJOY, STAR OF THIS RAD
SPACEWEATHER.COM PHOTOSHOOT.

PLEASE NOTE THAT WE HAVE CHANGED OUR NEWSLETTER NAMING CONVENTION. PREVIOUS NEWSLETTERS WERE NAMED AFTER THE MONTH WHICH MOST RECENTLY ENDED, WHILE THIS NEWSLETTER IS NAMED AFTER THE CURRENT MONTH. DON'T WORRY, YOU DIDN'T MISS ANY VITAL SPACE NEWS!



"I DIDN'T FEEL LIKE A GIANT. I FELT VERY, VERY SMALL."

-NEIL ARMSTRONG ON LOOKING BACK AT THE EARTH FROM THE MOON IN JULY 1969.