Smog increases the risk Stroke

Weather: cloudy with temperatures rising

Man Mifed: journey into the past of the Milan Fair

Science

#Hashtag

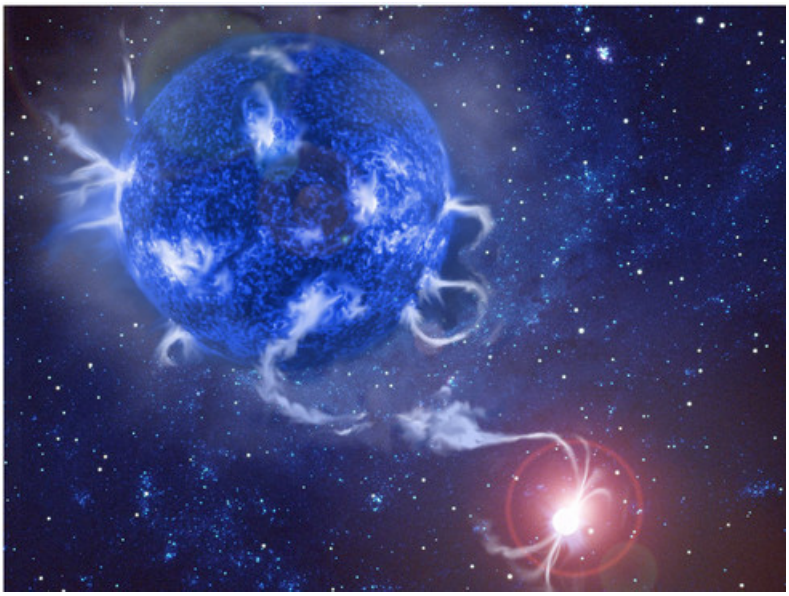
Tunisia | Exhibition | Corruption | Isis | Football | Tsipras | TAV | Renzi | Rai

Space: the pair of stars slightly magnetic

Thanks to the observations of NASA satellite NuSTAR was possible to derive the intensity of the magnetic field of the neutron star and its companion.

Desk2
Wednesday, November 26, 2014 21:20

www.media.inaf.it **Review**



Marco Galliani

Are couples who do not go unnoticed in the universe those composed of a very bright supergiant star around which orbits a compact object such as a white dwarf, or even more extreme as a neutron star or a black hole. Objects that manage to rip part of the outer layers of the supergiant. In plunging to its attractors, in spiraling orbits ever closer, this material becomes hot to the point of issuing a large amount of radiation in the X-band happens, however, that among these sources, defined Supergiant X-Ray Binary (SGXRB), or binary

Simil

Mars: finish marat

803 reco astro

Wha stars

A ga

A ne born

Eclip beau fake

The Sam

Com mole

The eclip black

Auro atmo

Read more

of the day | of the week | of the month

1.Fraud false Enel employees: tips for staying safe

2. Landini: the spring part of the work
3. Linosa, the vessel stranded threatens the bay
4. Aircraft Phantom on the route Pantelleria-Tunisia
5. Di Pietro wants to be mayor of Milan, but no one wants
6. Milan, 13nne beaten in the family: mother and brother arrested
7. Riccardo Muti will conduct the concert for the birthday of Pavarotti
8. Terre Perse, a balloon against the Eco-monsters
9. Facial & Barnabas ... homeless in the Vatican
10.Bench Milan here is the whole truth

साइन अप Create an account or लॉग इन to see what your friends recommend.

Grillo, a voice from the past:
5 लोकांनी ह्याची शिफारस केली

The Good School: teachers eligible to write the last contest Mattarella
3 लोकांनी ह्याची शिफारस केली

2 लोकांनी ह्याची शिफारस केली

Berlusconi has decided: Marina premier
608 लोकांनी ह्याची शिफारस केली

Nitto Palma lawsuit Crozza: shameful joke
269 लोकांनी ह्याची शिफारस केली

Connect

User:

Password:

Connect
New user
Forgot your password?

systems with giant X-ray emission, there is someone even more unusual. Those who, suddenly, within hours, they see massively increase their X-ray emission, even a thousand times, then return to a more moderate and continuous flow: those that astrophysicists call with the initials SFXT (Supergiant Fast Transient X-ray).

Even the founder of this strange class of X-ray sources dall'impronunciabile name source IGR J17544-2619, discovered more than ten years ago, exactly in 2003 by ESA's INTEGRAL satellite, escapes these uncertainties. Since then, this source was sieved by virtually all observers space for the high-energy astrophysics, including XMM-Newton, Chandra and Swift. More than seven years now, this satellite, notes with methodical precision not only IGR J17544-2619 but also the other dozen sources that today make up the class of SFXT, studying systematically both their 'eruptions' that continued emissions in the X-ray

Because these sources behave so bizarre is still far from clear, and the various theoretical models that try to rebuild their property, sometimes even antagonistic, are still incomplete or even inconsistent with some observational evidence. Some of them suggest that the process of accretion of matter onto the compact object is governed by the structure of the gas, which can reach 'gushing' and then intermittently from the companion star, others propose that the magnetic field of the attractor and its speed of rotation to regulate the speed of growth of matter and therefore its brightness in the X-ray

To clarify some obscure points of the properties and behavior of these sources come now NuStar NASA satellite observations made on IGR J17544-2619. The unprecedented accuracy of these measures has enabled the team of researchers led by Varun Bhalerao Inter University Center for Astronomy and Astrophysics (India) and attended by researchers INAF Patrizia Romano and Lorenzo Natalucci, to identify the spectrum of X-rays the radiation emitted by the source, the unmistakable signature of the interaction between the stellar matter and the magnetic field of the object that is sucking compact: what is called "line of the cyclotron."

"The observation of NuStar has allowed for the first time to detect and then to measure the energy of a row in a cyclotron SFXT. The immediate consequence of this discovery is the direct measurement of the magnetic field of the celestial body on which it is falling matter from the companion. Information is vital for understanding the mechanisms that produce the different behavior observed in SFXT than other binary X normal "explains Patrizia Romano INAF-IASF of Palermo, study coordinator of SFXT with Swift and second author of the paper describing the measure , for publication in the journal Monthly Notices of the Royal Astronomical Society.

"This is another demonstration of the incredible ability to NuStar to reveal rows of cyclotron in binary stars. On the other hand, 'just one of the purposes of the programmatic mission "adds Lorenzo Natalucci, researcher IAPS-INAF in Rome and member of the scientific team of NuStar. "This result follows major studies with satellites INTEGRAL and Swift and have seen a fundamental contribution of Italian researchers."

The revelation of the cyclotron line in IGR J17544-2619 marks, then, a turning point. The SFXT have in common with other high-mass binary is the companion (a massive star-type OB), is the compact object, probably a

neutron star. All things being equal, for example, the mutual orbit of the two bodies in the binary system, one would expect to see the same phenomena, the same behavior. Instead the first emit intense pulses (flare) radiation X, the second in an almost constant. As if to say: If we make a cake for the same ingredients in the same proportions to two chefs working in the same kitchen with the same recipe, then it is expected to produce cakes very similar, if not indistinguishable. Unless the way in which mixing the ingredients, for example, is different. "So is for SFXT, and the models most accredited tend to show that the cooks, so to speak, are pouring flour (ie the gas that is deposited on the neutron star) in a different way, one freely, one more jerky" reiterates Romano.

And why is poured in one way or another, depends on the cook, or the celestial object that attracts matter on himself. Some current models, in fact, require that the object is a magnetar or a neutron star with a very high magnetic field (1014 Gauss). The measure NuSTAR obtained is 100 times smaller than the typical values of these cosmic super-magnets. It is thus not excluded that the compact object of the prototype of the class of SFXT may be a magnetar, confirming that, at least for this object, the magnetic field has the same value as that in the other binary X of large mass.