Amit Rastogi¹, Sarah Jordan², Elena Baryshnikova³

¹Research Scientist cum Research Assistant Professor cum CEO cum Director Executive, Amit Biosciences & Bio Nanotechnology, An Autonomous Non-Employed Non-Profit Non Government Research & Development
²Non Payment Executive Advisor Council Member, Amit Biosciences & Bionanotechnology
³Co – Founder, Amit Biosciences & Bionanotechnology

Abstract

Corona Borealis is a small constellation between Hercules and Bootes. It is characterized by a half-moon shaped line of stars, among which Gemma is conspicuous, similar to a precious stone on the crown (this star is also known with the name of Alphecca). In the constellation there are two interesting variable stars. The first one, R Coronae Borealis, is normally of sixth magnitude, but it can quickly go down to the fourteenth, to return to the original shine after some months. The second one, T Coronae Borealis, usually revolves around the tenth magnitude, but in 1866 and in 1946 it increased its brightness up to touch, respectively, the magnitude 2 and 3: it is probable that there will be other eruptions. In the present review Amit Rastogi Explaining Stars in Coronae Borealis & two NGC 6086 & NGC 6089.

Date of Submission: 06-07-2023

Date of acceptance: 19-07-2023

I. Introduction cum Explanation Coronae Borealis

Small constellation between Hercules and Bootes. It is characterized by a half-moon shaped line of stars, among which Gemma is conspicuous, similar to a precious stone on the crown (this star is also known with the name of Alphecca). In the constellation there are two interesting variable stars. The first one, R Coronae Borealis, is normally of sixth magnitude, but it can quickly go down to the fourteenth, to return to the original shine after some months. The second one, T Coronae Borealis, usually revolves around the tenth magnitude, but in 1866 and in 1946 it increased its brightness up to touch, respectively, the magnitude 2 and 3: it is probable that there will be other eruptions. (https://www.astrofilitrentini.it/mat/costell/crb_e.html)





⁽https://www.popastro.com/main_spa1/variablestar/reference/guides/guide-to-r-coronae-borealis/)



⁽https://www.popastro.com/main_spa1/variablestar/reference/guides/guide-to-r-coronae-borealis/)



Figure 4: Explanation of Corona Borealis

⁽https://www.popastro.com/main_spa1/variablestar/reference/guides/guide-to-r-coronae-borealis/)



Figure 5: Top: distribution of GRBs with measured redshift (blue). Although the distribution of all GRBs is fairly isotropic, extinction causes this sample to miss GRBs near the Galactic plane. Bottom: anisotropic distribution of GRBs near redshift z = 2 (red). (https://arxiv.org/pdf/1510.01933.pdf)



Figure 5 a & b: Explanation of Corona Borealis (<u>https://www.astrofilitrentini.it/mat/costell/crb_e.html</u>) (<u>https://Google.com</u>)

Alphecca - Coronae Borealis (https://theskylive.com/sky/stars/alphecca-alpha-coronae-borealis-star)

Alphecca, also designated as α Coronae Borealis (alpha Coronae Borealis), is a variable hypergiant star in the constellation of <u>Corona Borealis</u>.

Alphecca visual magnitude is 2.23, making it the 66th brightest star in the sky. Thanks to its high brightness, Alphecca is clearly visible when observed from locations with dark skyes, and should be also quite easily visible from light polluted areas.



Figure 6: Alphecca - Coronae Borealis

Nusakan - β Coronae Borealis (beta Coronae Borealis) (<u>https://theskylive.com/sky/stars/nusakan-beta-coronae-borealis-star</u>)

Nusakan, also designated as β Coronae Borealis (beta Coronae Borealis), is a variable and double hypergiant star in the constellation of <u>Corona Borealis</u>.

Nusakan visual magnitude is 3.68. Because of its moderate brightness, Nusakan should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.

www.ijeijournal.com



Figure7: Beta Coronae Borealis

γ Coronae Borealis (gamma Coronae Borealis) (<u>https://theskylive.com/sky/stars/gamma-coronae-borealis-</u> star)

 $\overline{\gamma}$ Coronae Borealis is a variable and double sub-giant star in the constellation of <u>Corona Borealis</u>.

 γ Coronae Borealis visual magnitude is 3.84. Because of its moderate brightness, γ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



θ Coronae Borealis (theta Coronae Borealis) (<u>https://theskylive.com/sky/stars/theta-coronae-borealis-star</u>)

 θ Coronae Borealis is a variable and double main-sequence star in the constellation of <u>Corona Borealis</u>. θ Coronae Borealis visual magnitude is 4.14. Because of its moderate brightness, θ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



ε Coronae Borealis (epsilon Coronae Borealis) (<u>https://theskylive.com/sky/stars/epsilon-coronae-borealis-star</u>)

 ϵ Coronae Borealis is a multiple giant star in the constellation of <u>Corona Borealis</u>.

 ε Coronae Borealis visual magnitude is 4.15. Because of its moderate brightness, ε Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



Figure 10: Epsilon Coronae Borealis

δ Coronae Borealis (delta Coronae Borealis) (<u>https://theskylive.com/sky/stars/delta-coronae-borealis-star</u>) δ Coronae Borealis is a variable giant star in the constellation of <u>Corona Borealis</u>.

 δ Coronae Borealis visual magnitude is 4.63. Because of its moderate brightness, δ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.

www.ijeijournal.com



τ Coronae Borealis (tau Coronae Borealis) (<u>https://theskylive.com/sky/stars/tau-coronae-borealis-star</u>)

 τ Coronae Borealis is a variable and double giant star in the constellation of <u>Corona Borealis</u>. τ Coronae Borealis visual magnitude is 4.76. Because of its moderate brightness, τ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



Figure12: Tau Coronae Borealis

 κ Coronae Borealis (kappa Coronae Borealis) (<u>https://theskylive.com/sky/stars/kappa-coronae-borealis-star</u>) κ Coronae Borealis is a double sub-giant star in the constellation of <u>Corona Borealis</u>.

 κ Coronae Borealis visual magnitude is 4.82. Because of its moderate brightness, κ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



Figure 13: kappa Coronae Borealis



 ξ Coronae Borealis is a double hypergiant star in the constellation of <u>Corona Borealis</u>.

 ξ Coronae Borealis visual magnitude is 4.85. Because of its moderate brightness, ξ Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



Figure 14: Kappa Coronae Borealis

ι Coronae Borealis (iota Coronae Borealis) (https://theskylive.com/sky/stars/iota-coronae-borealis-star)

ι Coronae Borealis is a variable hypergiant star in the constellation of Corona Borealis.

ι Coronae Borealis visual magnitude is 4.99. Because of its moderate brightness, ι Coronae Borealis should be easily visible from locations with dark skyes, while it can be barely visible, or not visible at all, from skyes affected by light pollution.



Figure 15: Iota Coronae Borealis

- ζ2 Coronae Borealis (zeta2 Coronae Borealis) (<u>https://theskylive.com/sky/stars/zeta2-coronae-borealis-star</u>)
- $\zeta 2$ Coronae Borealis is a double main-sequence star in the constellation of Corona Borealis. $\zeta 2$ Coronae Borealis visual magnitude is 5.07. Because of its reltive faintness, $\zeta 2$ Coronae Borealis should be



visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.

μ Coronae Borealis (mu Coronae Borealis) (https://theskylive.com/sky/stars/mu-coronae-borealis-star)

μ Coronae Borealis is a giant star in the constellation of Corona Borealis.

 μ Coronae Borealis visual magnitude is 5.11. Because of its reltive faintness, μ Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution



v1 Coronae Borealis (nu1 Coronae Borealis) (https://theskylive.com/sky/stars/nu1-coronae-borealis-star)

v1 Coronae Borealis is a variable and multiple giant star in the constellation of <u>Corona Borealis</u>. v1 Coronae Borealis visual magnitude is 5.2. Because of its reltive faintness, v1 Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure 18: Nu1 Coronae Borealis

v2 Coronae Borealis (nu2 Coronae Borealis) (<u>https://theskylive.com/sky/stars/nu2-coronae-borealis-star</u>) v2 Coronae Borealis is a giant star in the constellation of <u>Corona Borealis</u>.

v2 Coronae Borealis visual magnitude is 5.39. Because of its reltive faintness, v2 Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure 19: Nu2 Coronae Borealis

 ρ Coronae Borealis (rho Coronae Borealis) (<u>https://theskylive.com/sky/stars/rho-coronae-borealis-star</u>) ρ Coronae Borealis is a double hypergiant star in the constellation of <u>Corona Borealis</u>.

 ρ Coronae Borealis visual magnitude is 5.41. Because of its reltive faintness, ρ Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure 20: Rho Coronae Borealis

λ Coronae Borealis (lambda Coronae Borealis) (<u>https://theskylive.com/sky/stars/lambda-coronae-borealis-</u> star)

 λ Coronae Borealis is a double hypergiant star in the constellation of <u>Corona Borealis</u>.

 λ Coronae Borealis visual magnitude is 5.45. Because of its reltive faintness, λ Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution



Figure21: Lambda Coronae Borealis

o Coronae Borealis (omicron Coronae Borealis) (<u>https://theskylive.com/sky/stars/omicron-coronae-borealis-star</u>)

o Coronae Borealis is a variable and double hypergiant star in the constellation of <u>Corona Borealis</u>. o Coronae Borealis visual magnitude is 5.51. Because of its reltive faintness, o Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution



Figure 22: Omicron Coronae Borealis

 π Coronae Borealis (pi Coronae Borealis) (<u>https://theskylive.com/sky/stars/pi-coronae-borealis-star</u>)

 π Coronae Borealis is a giant star in the constellation of <u>Corona Borealis</u>.

 π Coronae Borealis visual magnitude is 5.56. Because of its reltive faintness, π Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution



Figure23: Pi Coronae Borealis

v Coronae Borealis (upsilon Coronae Borealis) (<u>https://theskylive.com/sky/stars/upsilon-coronae-borealis-star</u>) v Coronae Borealis is a variable and multiple main-sequence star in the constellation of <u>Corona Borealis</u>. v Coronae Borealis visual magnitude is 5.78. Because of its reltive faintness, v Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure24: Upsilon Coronae Borealis

ζ1 Coronae Borealis (zeta1 Coronae Borealis) (https://theskylive.com/sky/stars/zeta1-coronae-borealis-star) ζ1 Coronae Borealis is a double main-sequence star in the constellation of Corona Borealis.

 ζ 1 Coronae Borealis visual magnitude is 6. Because of its reltive faintness, ζ 1 Coronae Borealis should be

visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure 25: Zeta1 Coronae Borealis σ Coronae Borealis (sigma Coronae Borealis) (https://theskylive.com/sky/stars/sigma-coronae-borealisstar)

 σ Coronae Borealis is a multiple main-sequence star in the constellation of <u>Corona Borealis</u>. σ Coronae Borealis visual magnitude is 6.66. Because of its reltive faintness, σ Coronae Borealis should be visible only from locations with dark skyes, while it is not visible at all from skyes affected by light pollution.



Figure 26: Sigma Coronae Borealis

NGC 6086 - Elliptical Galaxy in Corona Borealis (https://theskylive.com/sky/deepsky/ngc6086-object)

NGC 6086 is a Elliptical Galaxy in the <u>Corona Borealis constellation</u>. NGC 6086 is situated north of the celestial equator and, as such, it is more easily visible from the northern hemisphere. NGC 6086 is **above the horizon** from Greenwich, United Kingdom.

The following table lists the magnitude of NGC 6086 in different bands of the electomagnetic spectrum (when available), from the B band (445nm wavelength, corresponding to the Blue color), to the V band (551nm wavelength, corresponding to Green/Yellow color), to the J, H, K bands (corresponding to 1220nm, 1630nm, 2190nm wavelengths respectively, which are colors not visible to the human eye).



Figure 27: The simplified sky charts below show the position of NGC 6089 in the sky with field of view of 60°



Figure 28: The simplified sky charts below show the position of NGC 6089 in the sky with field of view of 10°

NGC 6089 - Galaxy Pair in Corona Borealis (https://theskylive.com/sky/deepsky/ngc6089-object)

NGC 6089 is a Galaxy Pair in the <u>Corona Borealis constellation</u>. NGC 6089 is situated north of the celestial equator and, as such, it is more easily visible from the northern hemisphere. NGC 6089 is **above the horizon** from Greenwich, United Kingdom.



Figure 29: The simplified sky charts below show the position of NGC 6089 in the sky with field of view of 60°



Figure 30: The simplified sky charts below show the position of NGC 6089 in the sky with field of view of 60°



Figure 31: The simplified sky charts below show the position of NGC 6089 in the sky with field of view of 10°

https://theskylive.com/sky/deepsky/ngc6089-object

Advanced Conclusion

Space Scientist worldwide Globally are Advised not to send Radio Signal to Corona Borealis related stars & NGC. It destroyed Stars & NGC Energy. Space Problems occur by which such as Destructive Space Microbes can come to the Earth Stratosphere from their High Energy galaxies superclusters.

References

- $[1]. \qquad https://www.astrofilitrentini.it/mat/costell/crb_e.html$
- [2]. https://www.popastro.com/main_spa1/variablestar/reference/guides/guide-to-r-coronae-borealis/
- [3]. https://arxiv.org/pdf/1510.01933.pdf
- [4]. https://www.astrofilitrentini.it/mat/costell/crb_e.html
- [5]. https://Google.com
- [6]. https://theskylive.com/sky/stars/alphecca-alpha-coronae-borealis-star
- [7]. https://theskylive.com/sky/stars/nusakan-beta-coronae-borealis-star
- [8]. https://theskylive.com/sky/stars/gamma-coronae-borealis-star
- [9]. https://theskylive.com/sky/stars/theta-coronae-borealis-star
- [10]. https://theskylive.com/sky/stars/epsilon-coronae-borealis-star
- [11]. https://theskylive.com/sky/stars/delta-coronae-borealis-star
- [12]. https://theskylive.com/sky/stars/tau-coronae-borealis-star
- [13]. https://theskylive.com/sky/stars/kappa-coronae-borealis-star
- [14]. https://theskylive.com/sky/stars/xi-coronae-borealis-star
- [15]. https://theskylive.com/sky/stars/iota-coronae-borealis-star
- [16]. https://theskylive.com/sky/stars/zeta2-coronae-borealis-star
 [17]. https://theskylive.com/sky/stars/mu-coronae-borealis-star
- [17]. https://theskylive.com/sky/stars/mu-coronae-borealis-star
 [18]. https://theskylive.com/sky/stars/nu1-coronae-borealis-star
- [19]. https://theskylive.com/sky/stars/nu1-coronae-borealis-star [19]. https://theskylive.com/sky/stars/nu2-coronae-borealis-star
- [20]. https://theskylive.com/sky/stars/rho-coronae-borealis-star
- [21]. https://theskylive.com/sky/stars/lambda-coronae-borealis-star
- [22]. https://theskylive.com/sky/stars/omicron-coronae-borealis-star
- [23]. https://theskylive.com/sky/stars/pi-coronae-borealis-star
- [24]. https://theskylive.com/sky/stars/upsilon-coronae-borealis-star
- [25]. https://theskylive.com/sky/stars/zeta1-coronae-borealis-star
- [26]. https://theskylive.com/sky/stars/sigma-coronae-borealis-star
- [27]. https://theskylive.com/sky/deepsky/ngc6086-object
- [28]. https://theskylive.com/sky/deepsky/ngc6089-object