ISSN 2455-4863 (Online) **www.ijisset.org** *Volume: 6 Issue: 6 | 2020*

Proof and Disproof of Riemann Conjecture

James T. Struck BA, BS, AA, MLIS

Abstract: *Proof of the Riemann Conjecture can be done Using Placement of Zeroes on the ½ Critical Line, Line Thickness including infinitely thick lines and Zero Operator which operates on the Zeta function to place zeros on the ½ critical space line. Disproof of the Riemann Conjecture can be done Using Zeroes Outside the Critical Space, Infinity, and Lack of a Conjecture in 1859 discussed in the work of The* **Millennium Problems***: The Seven Greatest Unsolved Mathematical Puzzles Of Our Time (9780465017300): Keith J. Devlin: Basic Books; Edition Unstated edition (2002)(1) He states there was no real conjecture, so we can rely on his study too. We can also question what the actual conjecture was really about, so a vagueness proof is real too.*

Discussion

Conjectures are hypothesis or guesses. Is there a God? We can imagine something greater than anything else including a God. This proof of God is discussed in the work of Anselm of Canterbury and the work of St. Thomas Aquinas in Summa Theologica. We can imagine even if there was a God creating floods or turning people into salt that he or she is not a real God or an important or great God. Any or many conjectures can be proven and disproven.

The Riemann hypothesis can be seen as existing; that existence can itself be a type of proof. The Riemann hypothesis though was argued in the book The **Millennium Problems**: The Seven Greatest Unsolved Mathematical Puzzles of Our Time (9780465017300): Keith J. Devlin: Basic Books; Edition Unstated edition (2002)as not actually existing.(2) I read the 2002 edition. Even regarding the actual Riemann hypothesis existence, we can see questions about its existence as a type of proof and disproof. Further, regardless of the work of Devlin, I can say that Bernhard Riemann is not able to talk to us about his proof or conjecture. Therefore, we cannot discuss his conjecture, the conjecture is disproved as not completely comprehensible.

Here is a list of Proofs of the Riemann Conjecture and Disproof's of the Conjecture

Proof of the Riemann Conjecture

1. Proof. We can place every zero of the Riemann conjecture on the line ½. Even if there are not actual zeroes, we could still imagine the zeta function as placeable on the ½ line. Therefore placement of the equation and placement of the zeroes on the ½ line can be seen as a type of proof.
2. Proof by zero operator. Operators are a type of function that acts on something else. We can use or invent a zero operator that places every value ofthe zeta function on the ½ line.
3. Proof by existence. The conjecture can be seen as existing and therefore proved by existence
4. Proof by line thickness. No matter where a zero exists, we can make the line thick enough to be on the ½ line
5. Proof by a long ellipse. If we extend an ellipse long enough it can look like a line, therefore if we imagine an extended ellipse including all points, it can be seen as a line on the ½ line
6. The Zeta function at 1 has a value 1+1/2… As one of the points for the zeta function at 1 is at ½ the conjecture can be seen as proved for the value of 1
7. Belief proof. Riemann read the Bible with his wife. He can be seen as religious man. We too can believe in the Riemann Conjecture and not believe in the Riemann conjecture
8. Placement of the equation on the ½ line. If the equation is on the ½ line then all the subsequent zeros are related to the ½ line which Riemann said was the critical value.
9. Proof by graphical placement. Any zero anywhere could be graphically placed on the ½ line proving Reimann's argument
10. Proof by making the ½ line infinitely large. If the ½ line is infinitely large, then all the zeros are on the ½ line.
11. Wherever zeroes are, the critical line could still also go through the ½ critical line. The line could travel back at times to the critical line and still be along the critical line.
12. Wherever a zero is, the size of the zero could be made large to also go through the ½ line.
13. Vagueness can be seen as a type of proof too. As we do not know precisely what the conjecture was about or what the conjecture was or is, we can see vagueness is a type of proof that the conjecture can be proved as being a topic of historical debate and discussion.

Disproof of the Riemann Conjecture

1. Devlin's book The **Millennium Problems**: The Seven Greatest Unsolved Mathematical Puzzles Of Our Time (9780465017300): Keith J. Devlin:.Basic Books; Edition Unstated edition (October 16, 2003)argues there was no conjecture stated by Georg Bernhard Riemann. (3)

2. As we cannot talk to Georg Bernhard Riemann, we do not know what the actual conjecture was
3. Infinity disproof. If we add the zeta function at the point infinity, the zero or result would approach infinity or not be in the critical space or at the line ½. As the sum is outside the critical line, this zeta function would be not along the ½ line
4. We can place zeros outside the ½ line too, so placement of zeroes wherever we want can also be seen as a disproof
5. We can try the number 0 as a type of zero. The zeta function adds up to 1+1+1+1+1 or infinity. As the sum at zero is at infinity, the value of the function at 0 can be seen as a disproof
6. We understand prime numbers better by just doing a graph of prime numbers 2,3,5,7,9, 11 which do not lie along the line ½. The original article was on the subject "Understanding Prime Numbers Less than A Given Magnitude."
7. At the number 2, the sum of the zeta function would diverge towards a larger number and does not approach a zero or 1/2. So, the value at 2 can be seen as a disproof. Many numbers do not approach the ½ line or a zero
8. At the number 3, the zeta function can be seen as approaching a larger number or not equal ½. Again, for the number 3 we can see a type of disproof
9. Regardless of talking to Riemann, it is unclear what Riemann Conjecture is discussing or talking about. Vagueness can be seen as a type of disproof
10. Riemann read the Bible with his wife. He can be seen as religious man. We too can believe in the Riemann Conjecture and not believe in the Riemann conjecture. Here to disprove the Riemann conjecture I can say I do not believe in the Riemann conjecture
11. The zeta function goes to infinity. We can never finish looking at an infinite function, so proof can never be complete. Georg Cantor discussed concepts of infinity as pure and a different type of infinity which is countable infinity. Here there are questions if we can ever provide complete proof due to the zeta function series being infinite.
12. Imagine a negative antimatter version of the Riemann conjecture. The antimatter negative version of the Riemann Conjecture would not equal zero at the point ½ but rather would equal zero everywhere or would equal zero when the antimatter zeta function is added to the regular zeta function.

Conclusion

Riemann Conjecture can be proven and disproven as we show here. As both proof and disproof can be done, we can see that mathematics has some value for life. We can see hypotheses in general as both true and not true or provable and not provable. Riemann made up or invented his hypothesis in 1859. People like Nobel Prize winner Dr. John Forbes Nash were discriminated against and given shots without consent for his attempt at solving the Riemann conjecture. We can now see that Dr. Nash rather than being ill, was actually facing the complexities of math and life. We should use this discussion of proof and disproof of the Riemann conjecture to understand life's complexity.

Part of the idea of A Beautiful Mind about Dr. John Forbes Nash is that beauty involves complexity and possible proof and disproof.

The Riemann conjecture is open to many, here we show 13, proofs. The Riemann conjecture can also have many real counterexamples or disproof's. Life can be seen as beautiful in understanding its complexity open to proof and disproof.

Acknowledgements

I would like to thank my mother Jane Frances Back Struck for her help by saying words like "Heaven" "Shit" "Leave me alone" "Big frog" "birds of the air" "princess" and other words and helping me understanding the complexity of life even though she, like Dr. John Forbes Nash, got shots without consent for simple use of words protected by the First Amendment of the US Constitution.

Cook County, Northbrook, Glen Oaks, North Shore University, Illinois Court judges like Maureen E. Connors and Patrick Quinn and guardians like Nate Goldensen and Daniel Belko gave my mom shots without consent, even though there was no reason for their brutality and cruelty. Some IIT Kent College of Law graduates illustrated extreme cruelty, ADA violations and torture against my mother and I as I tried to visit my mother in a nursing home and IIT associated people beat my mom to death illustrating similar cruelty that Dr. John Forbes Nash experienced at Princeton.

References

[1] The **Millennium Problems**: The Seven Greatest Unsolved Mathematical Puzzles Of Our Time (9780465017300): Keith J. Devlin: Basic Books; Edition Unstated edition (2002)

[2] The **Millennium Problems**: The Seven Greatest Unsolved Mathematical Puzzles Of Our Time (9780465017300): Keith J. Devlin:__Basic Books; Edition Unstated edition (2002)

[3] Ibid.

[4] Ibid.