

CSE 300 Online 2

Your ID

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1 Introduction

Google Scholar is a wonderful search engine for finding research articles. It is freely accessible & indexes the full literature or metadata of scholarly articles across various formats and disciplines [2].

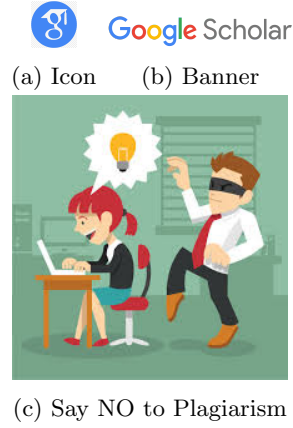


Figure 1: Guidance towards Research

2 Equations

Euler's formula is one of the most important equations in mathematics. It establishes a relationship between trigonometric function and complex exponential function. The equation is as follows.

$$e^{i\theta} = \cos \theta + i \sin \theta \quad (1)$$

If we put $\theta = \frac{\pi}{2}$ in equation 1, we get the following:

$$\begin{aligned} e^{i\frac{\pi}{2}} &= \cos \frac{\pi}{2} + i \sin \frac{\pi}{2} \\ &= 0 + i.1 \\ &= i \end{aligned}$$

If we put $\theta = \pi$, we get $e^{i\pi} + 1 = 0$ which is termed as *Euler's Identity* [1].

2.1 Equation Examples

$${}^nC_r = \binom{n}{r} = \frac{n!}{r!(n-r)!} \quad (2)$$

$$F_c(x, y) = \begin{cases} \frac{\partial^2 x^3 y^x}{\partial x^2} + \frac{\partial^2 \Gamma(x) \log(\tan y)}{\partial x \partial y} & \text{if } x, y \text{ are real numbers} \\ \lim_{z \rightarrow e^{x^2 y}} \sqrt{z + \frac{1}{\sqrt{z + \frac{1}{\sqrt{z + \dots}}}}} & \text{otherwise} \end{cases}$$

References

- [1] Wikipedia contributors. Euler's formula — Wikipedia, the free encyclopedia, 2019. [Online; accessed 13-July-2019].
- [2] Wikipedia contributors. Google scholar — Wikipedia, the free encyclopedia, 2019. [Online; accessed 10-July-2019].