

# **Ruby-Helix/Chem-Ruby/Bio-Ruby/RUMALE-ML + LLRB-JIT Compiler Based Analysis of Cryo-EM Images Using Novel Algorithms in Probing the Nano-Bio Material Systems – An Interesting insight into the world of Ruby Programming Language & LLVM w.r.t COVID-19 Virus → Towards investigating Spike Proteins.**

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## **[I] Informatics Framework Design :**

Test your ideas → Keep Hacking + Keep Rocking → Novel Designs w.r.t COVID-19.

Thanks from Nirmal – Informatics R&D.

## **[II] Additional Information on Mathematics & Software Used :**

[a]. <https://www.ma.utexas.edu/users/hadani/>

[b]. <http://cryoem.berkeley.edu/cryoem>

[c]. <https://lsbr.niams.nih.gov/bsoft/#>

## **[III] Acknowledgment/s :**

Special thanks to all those who have made this possible. The author declares no conflict of interest and no competing financial interest/s. This short note or technical communication is for non-profit academic research work.

#### **[IV] Important References :**

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- [3]. Nirmal Tej Kumar, An Insight into Cryo-EM Imaging Process Architecture Using GENTLE Compiler Construction System with an Informatics Design Paradigm.  
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