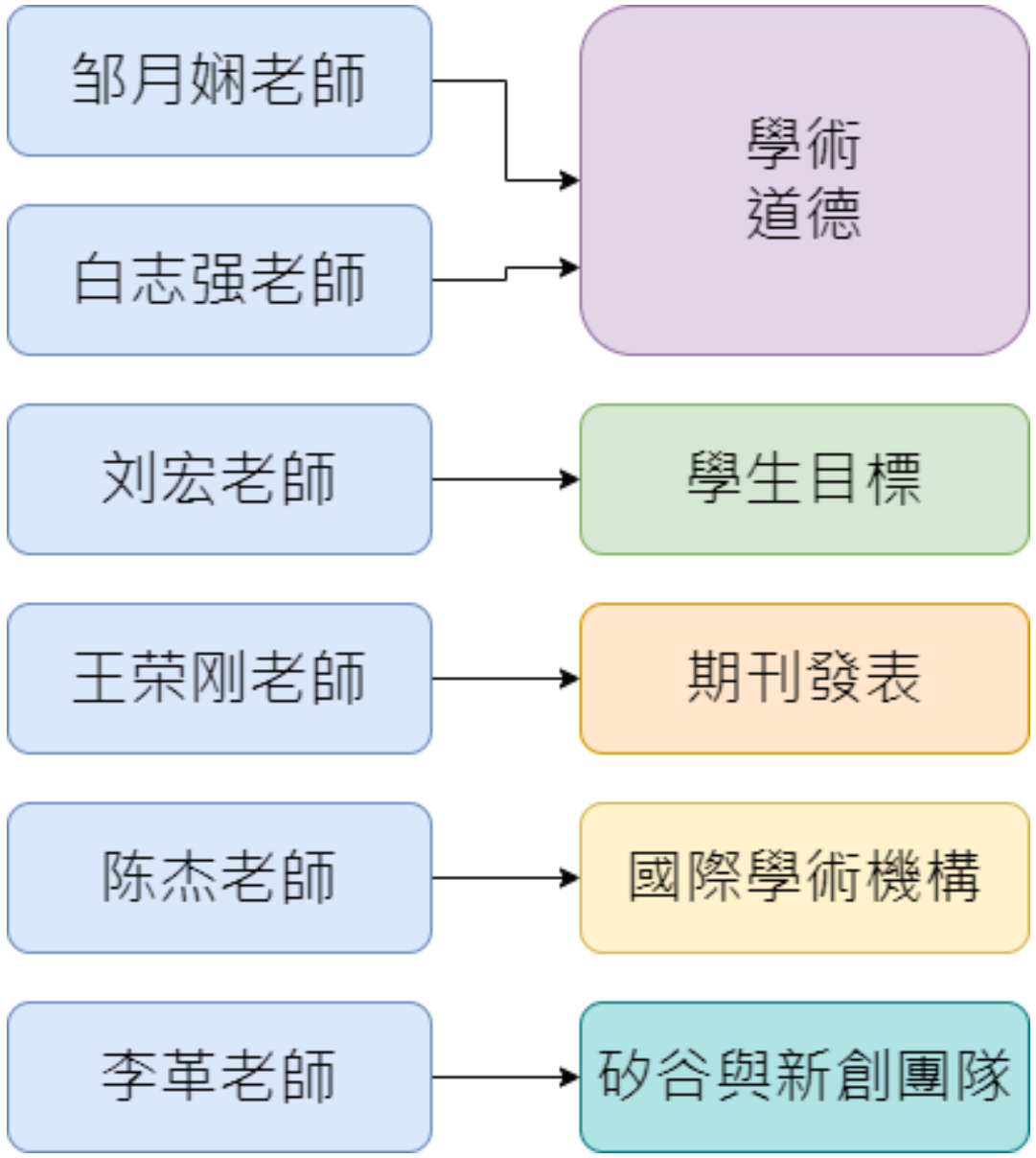
科研素質與研究方法簡報

信息工程學院 2021 級 干皓丞 2101212850

歸納



<<呼應>>

技術社群與學術 !!!

學生生涯

好棒棒的期刊 !!

會議與國際機構 !!

新創團隊經驗

歸納

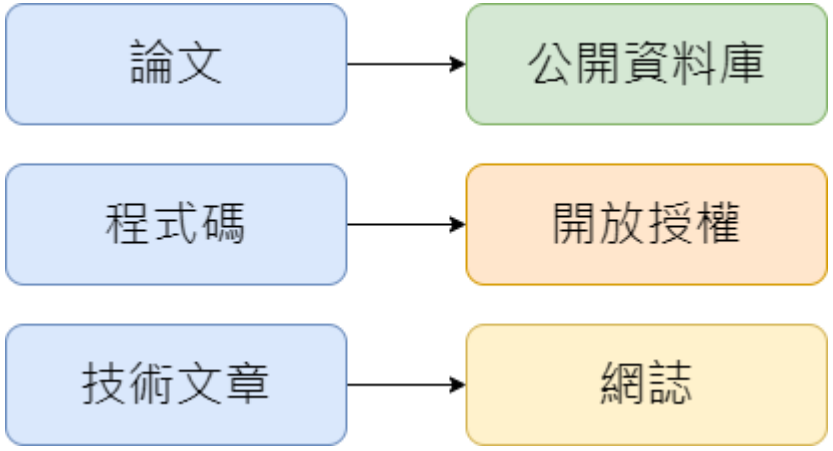
在此將報告分為三大部分，針對自己喜歡的點進行深入，希望能夠同時呼應，這學期不同學科之間與當下這三年的學生生涯、自我要求跟未來發展。

1. 學術與技術

2. LaTeX 懶人包

3. 國際期刊彙整

開放



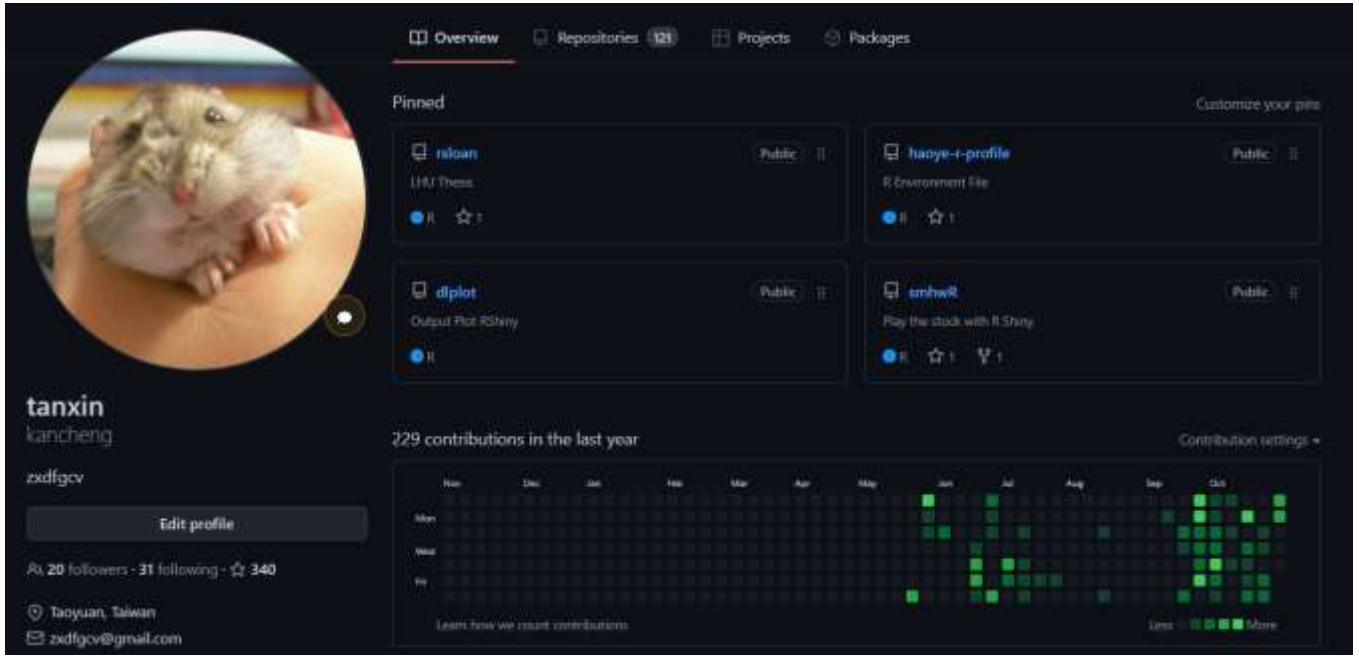
科研具有公共財特性，同時開放在網路上給公眾檢視，你才會有壓力認真寫。

平常要有做紀錄的習慣

期望遙遠的將來，有人因為一些緣故來到圖書館看到自己的研究，會說這此人有在好好地做研究。而非讓對方看到一個連格式都校定不好的垃圾。

技術

GitHub



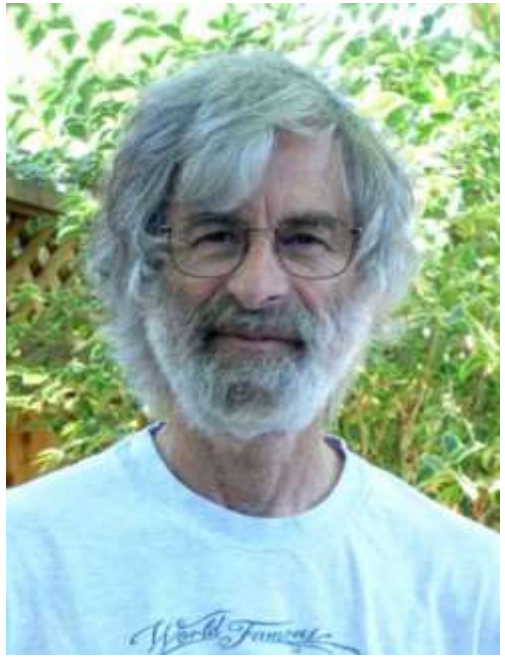
期望遙遠的將來，若有人類如太空等重大計畫，有使用到自己提供在開源專案貢獻的程式碼，那就成功了 ...
(成功大學嵌入式系統課程老師)

Blog

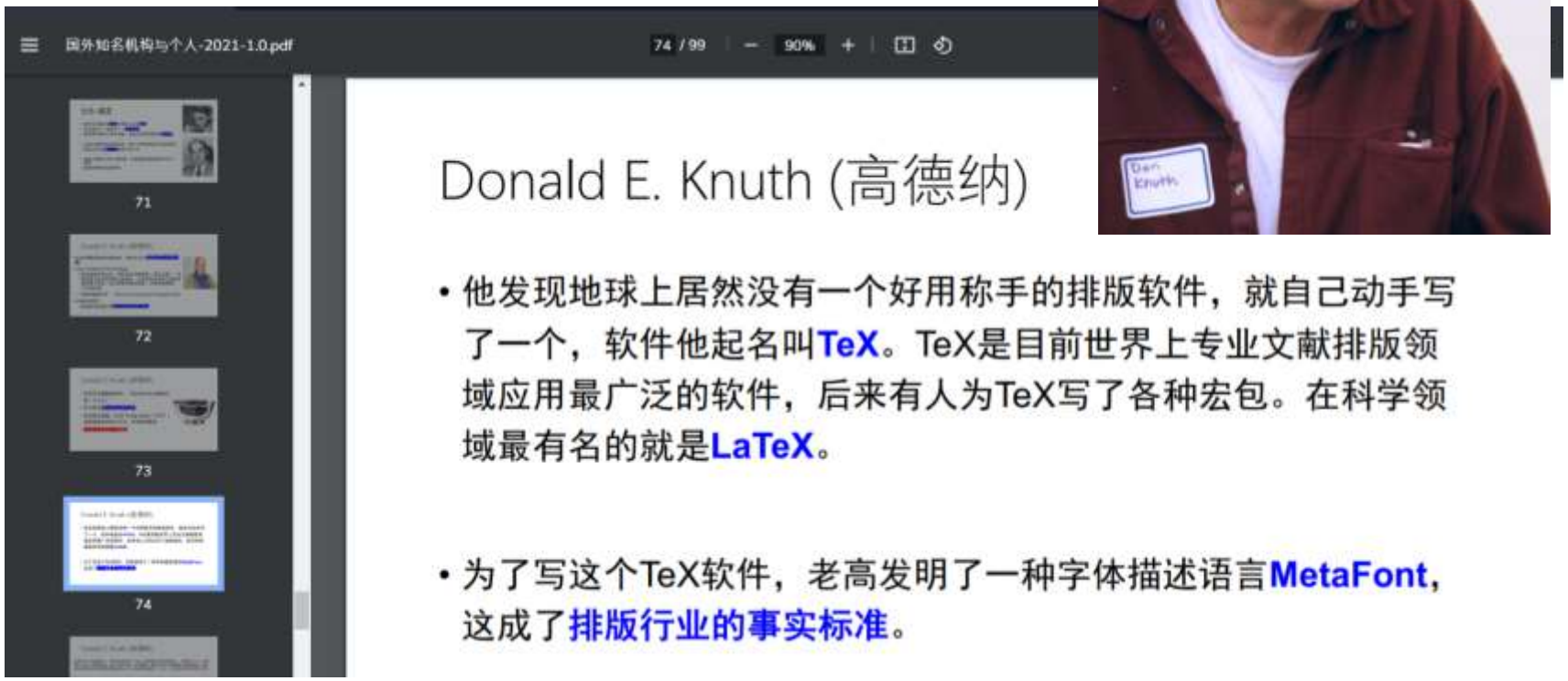
LaTeX 懶人包

懶人包，字面意義是讓沒時間、精力的懶人也能使用的文件。指有人熱心的將一個事件整理成簡要、完整的說明，以利於一般人快速了解。

Donald Ervin Knuth
TeX Developer



Leslie Lamport
LaTeX Developer
2013 圖靈獎



分布式系统内的时间、时钟事件顺序 - Time, Clocks, and the Ordering of Events in a Distributed System

LaTeX 優勢與方案

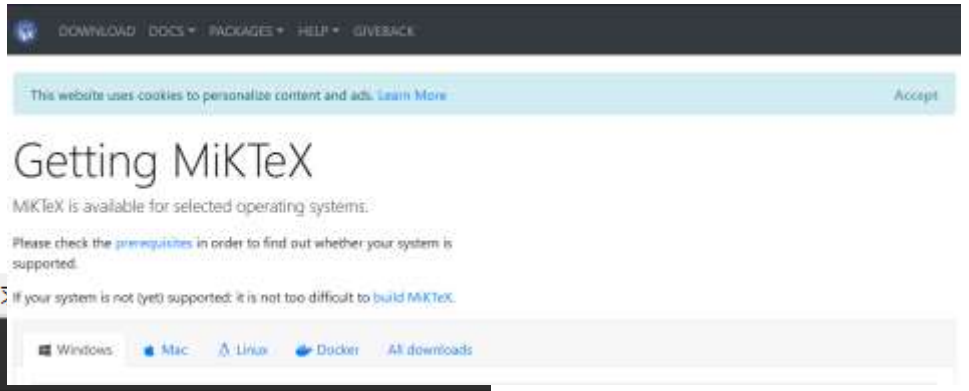
時間趕，需要短時間 > MS Word、LiberOffice、 Google 文件、騰訊文檔 etc.

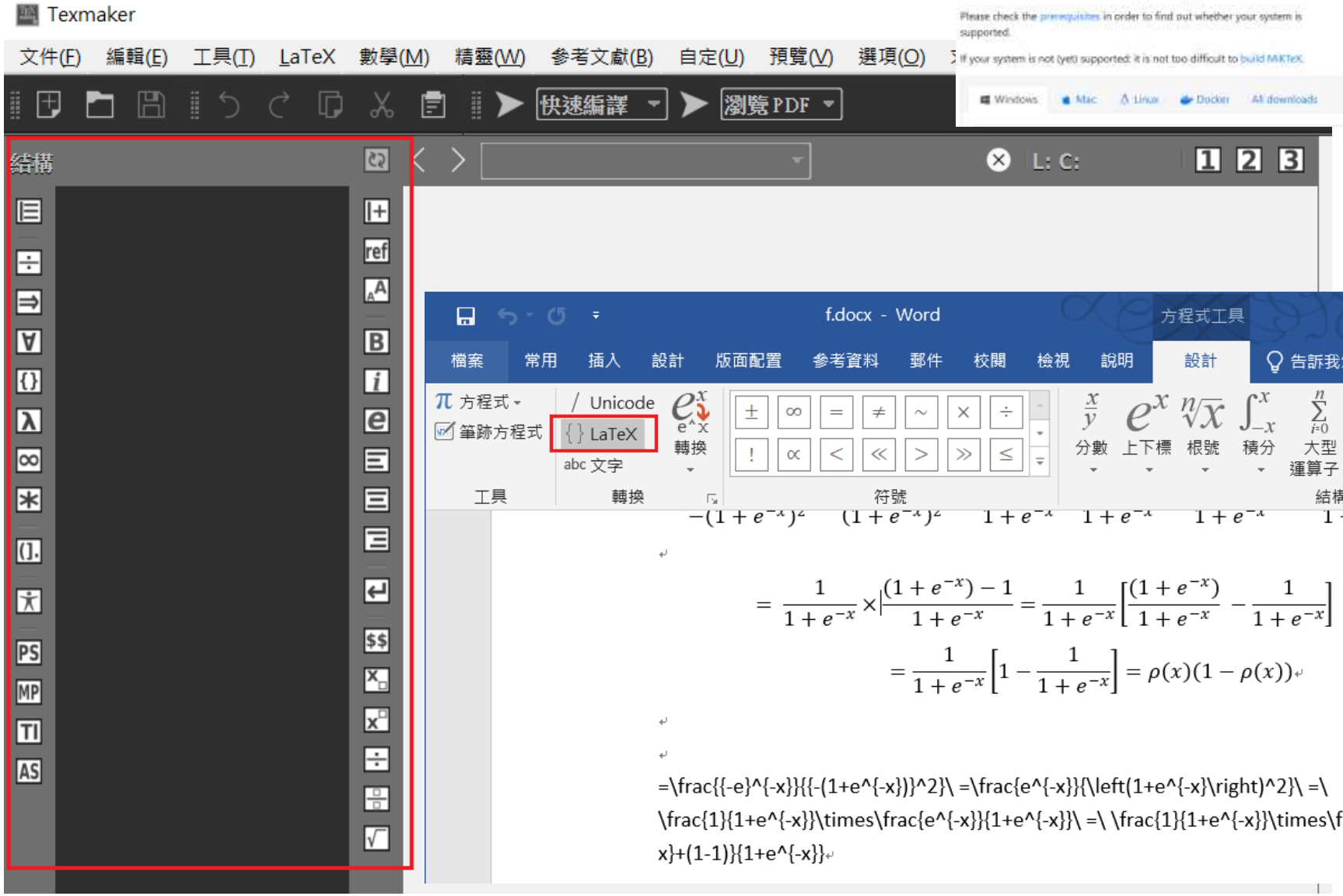
追求極簡與特別要求 > LaTeX

開源圖形化介面
支持本地端使用

圖形化介面
多人協作
大量模板

LaTeX 技巧



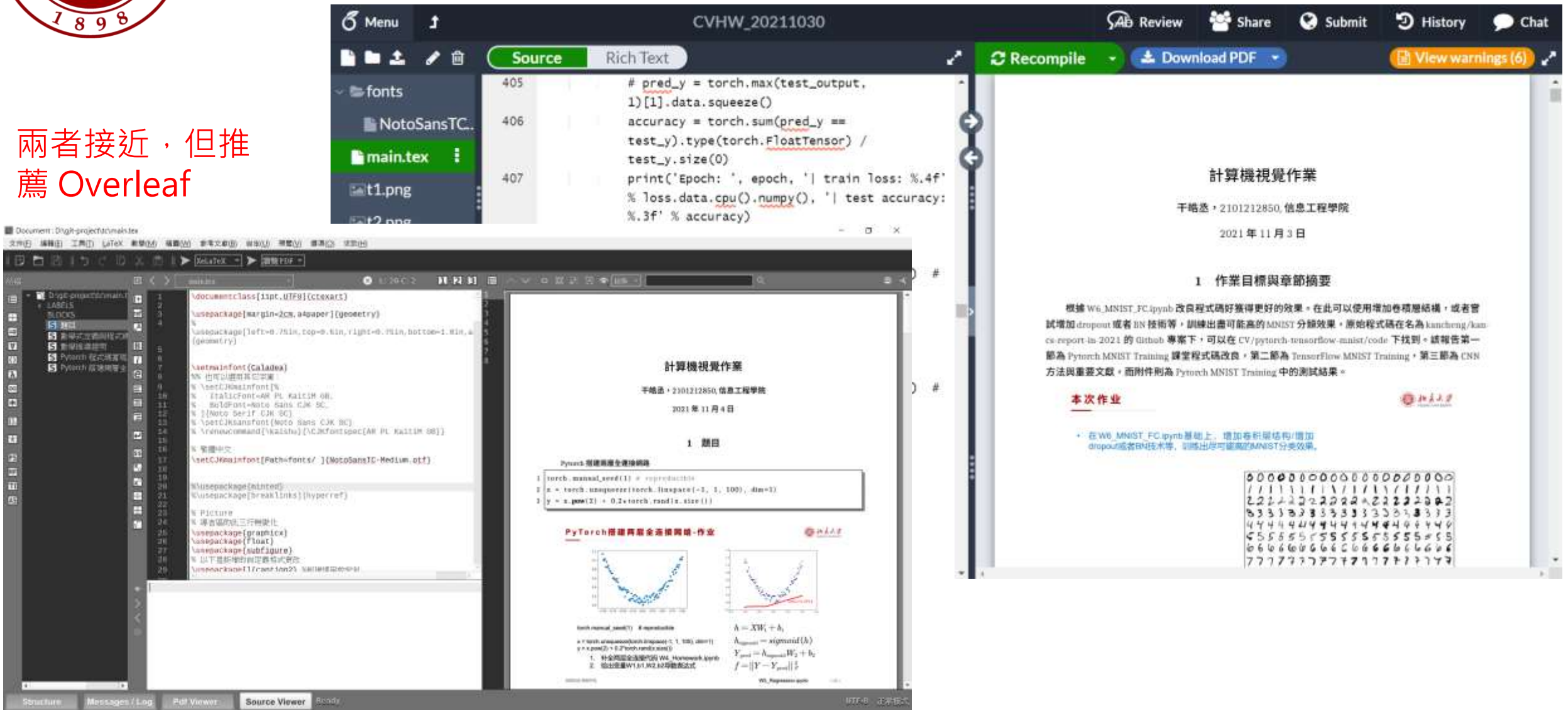


符號支援

數學式直接轉換

LaTeX 技巧

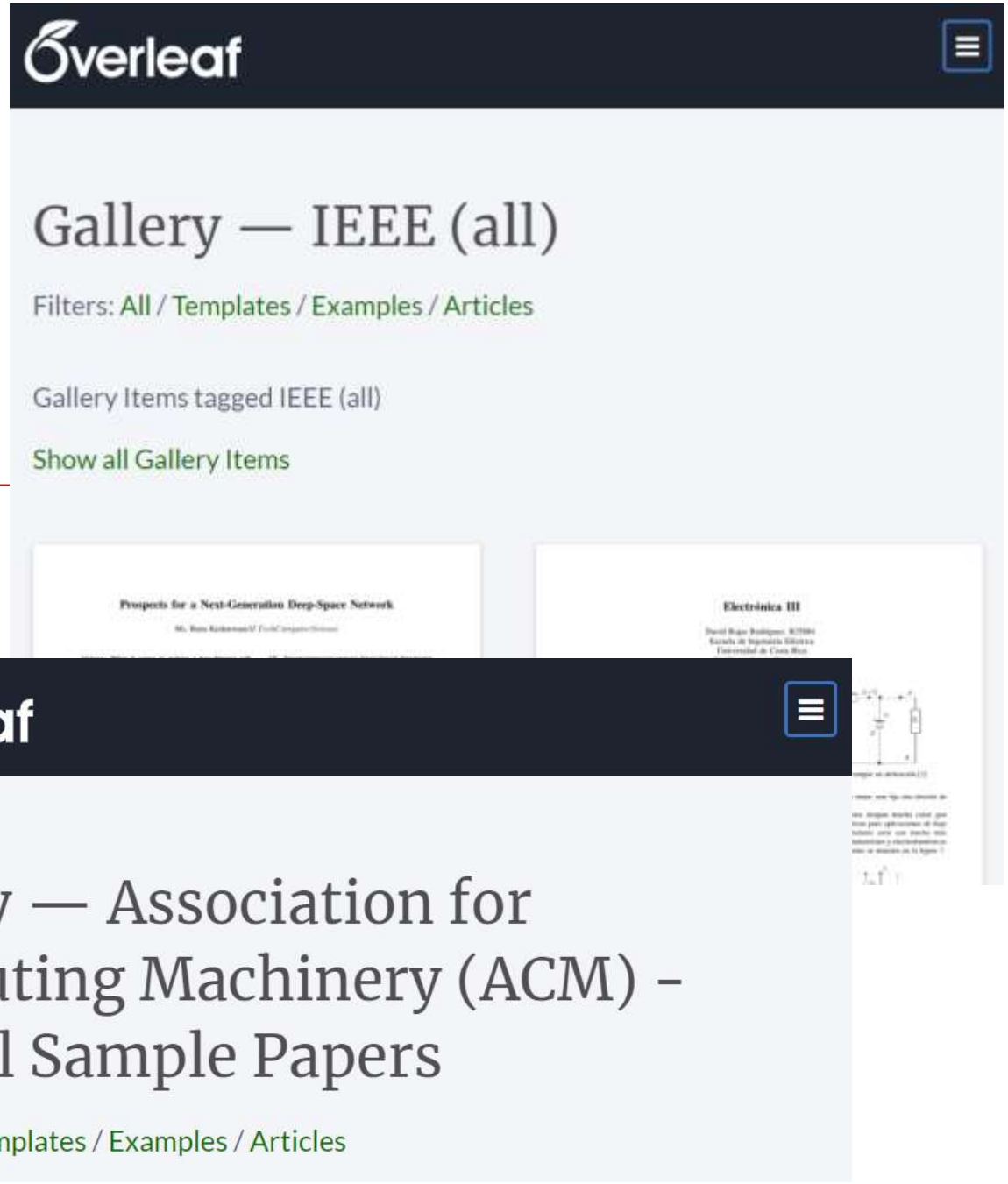
兩者接近，但推薦 Overleaf



LaTeX 技巧

国际期刊和会议

- 主要由工程技术领域的主要协会组织
  - ACM
  - IEEE
  - SPIE
  - IEE



歷年最佳論文彙總

1987 ~2019 年历届 ICCV 最佳论文（Marr Prize Paper）汇总

- **2019（举办地：韩国首尔）**
- **最佳论文**
- SinGAN:Learning a Generative Model from a Single Natural Image
  作者：Tamar Rott Shaham，Technion；
  Tali Dekel，Google Research；
  Tomer Michaeli，Technion

2000 ~2020 年历届 CVPR 最佳论文汇总

- **2020 (1篇)**
  - Unsupervised Learning of Probably Symmetric Deformable 3D Objects from Images in the Wild
    作者：吴尚哲, Christian Rupprecht, Andrea Vedaldi
- **2019（1篇）**
  - A Theory of Fermat Paths for Non-Line-of-Sight Shape Reconstruction
    非视线形状重建的费马路径理论
  - **作者：**辛书冕, Sotiris Nousias, Kiriakos N. Kutulakos, Aswin C. Sankaranarayanan, Srinivasa G. Narasimhan and Ioannis Gkioulekas

1. CVPR Best Paper Award

2. ICCV Best Paper Award (Marr Prize)

3. NeurIPS Best Paper Awards

CVPR 歷年

CVPR (Computer Vision) - CVPR Best Paper Award

年代	論文名	研究者
2020	Unsupervised Learning of Probably Symmetric Deformable 3D Objects from Images in the Wild 在沒有任何監控之下 讓系統去學習從野外中取得的 Probably Symmetric Deformable 3D Objects 影像	吳尚哲 (Shangzhe Wu), University of Oxford Christian Rupprecht, University of Oxford Andrea Vedaldi, University of Oxford
2019	A Theory of Fermat Paths for Non-Line-of-Sight Shape Reconstruction 非視線形狀重建的費馬路徑理論	辛書冕 (Shumian Xin), Carnegie Mellon University Sotiris Nousias, University College London Kiriakos N. Kutulakos, University of Toronto Aswin C. Sankaranarayanan, Carnegie Mellon University Srinivasa G. Narasimhan, Carnegie Mellon University Ioannis Gkioulekas, Carnegie Mellon University
2018	Taskonomy: Disentangling Task Transfer Learning 任務學：任務遷移學習的解耦	Amir R. Zamir, Stanford University Alexander Sax, Stanford University 沈博魁 (William Shen), Stanford University Leonidas Guibas, Stanford University Jitendra Malik, University of California, Berkeley Silvio Savarese, Stanford University
2017	Densely Connected Convolutional Networks 密集連接的卷積網絡	劉壯 (Zhuang Liu) , 清華大學 (Tsinghua University) 黃高 (Gao Huang), Cornell University Laurens van der Maaten, Facebook AI Research

ICCV 歷年

ICCV (Computer Vision) - ICCV Best Paper Award (Marr Prize)

年代	論文名	研究者	舉辦地
2019	SinGAN: Learning a Generative Model from a Single Natural Image	Tamar Rott Shaham, Technion – Israel Institute of Technology Tali Dekel, Google Tomar Michaeli, Technion – Israel Institute of Technology	韓國首爾
2017	Mask R-CNN	Kaiming He, Facebook AI Research Georgia Gkioxari, Facebook AI Research Piotr Dollar, Facebook AI Research Ross Girshick, Facebook AI Research	義大利威尼斯
2015	Deep Neural Decision Forests	Peter Kontschieder, Microsoft Madalina Fiterau, Carnegie Mellon University Antonio Criminisi, Microsoft Samuel Rota Bulò, Microsoft	智利聖地牙哥
2013	From Large Scale Image Categorization to Entry-Level Categories	Vicente Ordonez, University of North Carolina at Chapel Hill Jia Deng, Stanford University Yejin Choi, Stony Brook University Alexander Berg, University of North Carolina at Chapel Hill	澳大利亞雪梨

NIPS 歴年

NeurIPS (Machine Learning)

年代	論文名	研究者
2020	No-Regret Learning Dynamics for Extensive-Form Correlated Equilibrium	Andrea Celli, Politecnico di Milano Alberto Marchesi, Politecnico di Milano Gabriele Farine, Carnegie Mellon University Nicola Gatti, Politecnico di Milano
2020	Improved guarantees and a multiple-descent curve for Column Subset Selection and the Nyström method	Michal Derezinski, University of California, Berkeley Rajiv Khanna, University of California, Berkeley Michael W. Mahoney, University of California, Berkeley
2020	Language Models are Few-Shot Learners	Tom B. Brown, Open AI Benjamin Mann, Open AI Nick Ryder, Open AI Melanie Subbiah, Open AI Jared D. Kaplan, Johns Hopkins University
2019	Distribution-Independent PAC Learning of Halfspaces with Massart Noise	Ilias Diakonikolas, University of Southern California Themis Gouleakis, Max Planck Institute for Informatics Christos Tzamos, University of Wisconsin–Madison
2018	Non-delusional Q-learning and Value-iteration	Tyler Lu, Google Dale Schuurmans, Google Craig Boutilier, Google
		Kevin Scaman, Huawei Noah's Ark Lab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