Issue 61

Happy New Year! In this issue, you will find recent nanoHUB news, plus some of our top tools, presentations, and more as we recap the most popular nanoHUB newsletter articles of 2022.

nanoHUB News

nanoHUB Partners with Schrödinger for Member Access to Online Courses

We recently announced our partnership with **Schrödinger**, the scientific leader in developing state-of-the-art chemical simulation software.

Through our partnership, you have the opportunity to level up your skill set with hands-on, online computational chemistry courses using industry-leading technology at a discounted rate. See the course topics in the image below.

The next session begins February 1, and runs through March 15, 2023. **The deadline to register is TODAY, January 30th, 2023**. When registering, use code **NANOHUB6** to receive the special nanoHUB user discount! **Click here for full details and to register.** Please reach out to us via **contact@nanoHUB.org** if you have any questions.

Organic Electronics

Homogeneous Catalysis

Surface Chemistry

Pharmaceutical Formulations

Polymeric Materials

Consumer Packaged Goods

Updates to Jupyter Notebooks in nanoHUB

This month we introduced a significant update to Jupyter notebooks in nanoHUB, which we call Jupyter+. Jupyter+ is a collection of Jupyter extensions and themes developed especially for nanoHUB to improve the user experience, especially when developing new notebooks, lessons, and tools.
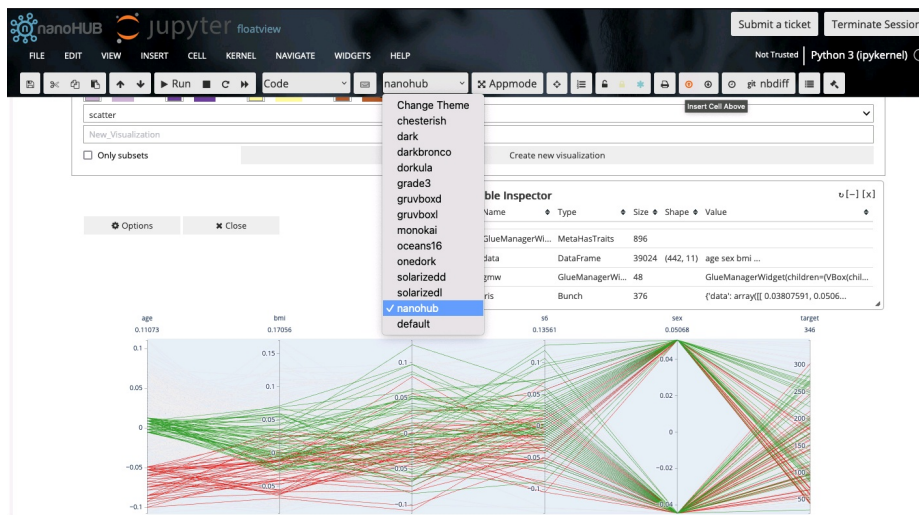
Some of the new extensions nanoHUB developed include:

- Tree-filter: allows users to filter by filename in the Jupyter notebook file tree
- Theme-selector: allows users to select between different color schemes
- Variable-inspector: displays all properties of variable in the notebook kernel
- Cell-freeze: allows users to lock cells so they cannot be modified (yellow) or cannot be executed (blue)
- Markdown-preview: allows users to visualize the rendered markdown while they are still editing the cell
- Table of contents: collects all headers in cells that are running and displays them as a navigation menu
- Code prettifier: reformats code in notebook code cells to look nicer
- Codefolding: adds the codefolding functionality from CodeMirror code cells
- Highlight word: highlights all instances of the selected word in either the current cell's editor, or in all cells in the notebook
- And more! Check out the **guide to the new Jupyter notebook features**, for examples that are ready to run and explore. You can use Jupyter+ extensions in the latest version of Jupyter: **https://nanohub.org/tools/jupyter70**.

Jupyter+ extensions are also shared in a public python library called **nanohubthemes** that is hosted on pypi.

In February, we will host a tutorial to demonstrate the new Jupyter capabilities. Hold the date and keep an eye on your email, the **nanoHUB events page**, and nanoHUB social media pages for information on how to register.

Title: A guided tour of interactive Jupyter notebooks powered by nanoHUB
Date and time: Friday, February 24 at 12:00 PM EST

New OOMMF Presentation in nanoHUB

In **this presentation**, Yicong Chen, of **Beth Stadler's** Research Lab at The University of Minnesota, focuses on the micromagnetic simulation of magnetic nanowires (MNW) using OOMMF. Follow along in the **OOMMF tool on nanoHUB** as you view the presentation. You can also join our **OOMMF Users Group** to stay connected to the community.

Celebrating the 75th Anniversary of the Transistor with nanoHUB Resources

We're keeping the celebration going for the 75th Anniversary of the Transistor by sharing a curated collection of transistor resources including courses, presentations, simulation tools, and compact models. Visit our **75th Anniversary of the Transistor group** to learn more, and also check out nanoHUB's **semiconductor workforce development resources**.

nanoHUB Newsletter Highlights from 2022

This month we take a look at our most popular newsletter articles over the last year. As we begin a new year, we would also like to hear from you! What would you like to see from nanoHUB this year? Are there topics you'd like to be covered in a webinar? Let us know by emailing **contact@nanohub.org**.

Back to School Webinar Series
August 2022 newsletter
This series gives you the opportunity to learn from faculty who use nanoHUB in their classes and research. Faculty share how they use nanoHUB simulation apps and assignments, as well as share aspects of teaching or doing research using nanoHUB resources.

Hands-On Data Science and Machine Learning Training Series
April 2022 newsletter

Interested in machine learning? Check out the **nanoHUB Data Science and Machine Learning Training Series**. This set of workshops introduces users to important concepts and techniques in data science and machine learning in the context of engineering and physical sciences applications.

All workshops include video tutorials and hands-on activities, where users can apply learned techniques to solve real problems using free online resources at nanoHUB, no need to install any software. Visit the **Data Science and Machine Learning page** to access all tutorials and check back regularly for upcoming workshops.

MATLAB Available on nanoHUB
March 2022 newsletter
MATLAB, the programming and numeric computing platform, is available to use for free on nanoHUB. You can run scripts and Live Scripts posted on nanoHUB, including homework problems, research code and other examples, or use your own code.

Thermo-Calc Educational Package on nanoHUB
February 2022 issue
The **Thermo-Calc Software Educational Package** is available to use for free on nanoHUB for educational purposes.

To gain access to Thermo-Calc on nanoHUB, users are required to join the **Thermo-Calc Educational Version nanoHUB group**. Visit the group page for complete instructions on how to join.

Semiconductor Workforce Education and Recitation Series
February 2022 issue
In February 2022 we debuted our new **Semiconductor Workforce Center**. The center includes curated content for users interested in semiconductor education.

You can find nanoHUB's unique immersive learning through simulation, open courseware, free textbooks, and commercial software, along with our **Recitation Series for Semiconductor Education**. In this series, Dr. Gerhard Klimeck introduces the **ABACUS tool suite** and shares how faculty can enhance semiconductor classes with interactive simulations and engage students in more active forms of learning.

Do you have a suggestion or nanoHUB success story you'd like to share? Use our Contact Us form and you may see your submission in a future newsletter!

How can you support nanoHUB? Check out our donation page to learn more.

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