

BIRS Workshop 2023  
Mathematical Methods for Exploring and Analyzing Morphological Shapes across Biological Scales

# Shape Recognition and Model Building in Cryo-EM with FFF

Yuhang (Steven) Wang  
DP Technology, Ltd., Beijing, P. R. China

2023.9.6

DP Technology  
深势科技

# FFF Notebook & App

The screenshot shows the Bohrium Notebook interface. The main content area displays the notebook title "FFF | Fragment-Guided Flexible Fitting" by wangyh@dp.tech, updated on 2023-09-06. The notebook content includes a title "FFF | Fragment-Guided Flexible Fitting for Cryo-EM" and a "Quick Start" section with a "Connect" button. A QR code is visible on the right side of the notebook page. The left sidebar contains a "Contents" menu with items like "FFF tutorial", "ASCT2: A multi-conformation...", "Use FFF algorithm", and "1. Density map recognition".

[nb.bohrium.dp.tech/detail/2412744727](https://nb.bohrium.dp.tech/detail/2412744727)

The screenshot shows the Bohrium App interface. The main content area displays the app title "FFF | automated cryo-EM structure building" with the subtitle "Fragment-guided flexible fitting with deep learning". The app is currently in a "Form" view, showing a "Select Sub Model" dropdown menu with the selected option "1\_map2struct | Build a structure from a cryo-EM map". Below the dropdown, there are four numbered steps: 1. IO Options (Configure job input files by upload from local or choose from workspace), 2. Job Options (Setting values for variables such as filters, algorithms, or model parameters), 3. System Options (Configure system-level parameters that affect the behavior of the application or platform being used to run the task), and 4. Review (Summary of all the parameters you have configured so far).

<https://app.bohrium.dp.tech/fff>

User Guide: <https://dptechnology.feishu.cn/wiki/Q4Miw49YLid8cPkh4cPcVAgMnof>