

Supplementary Data

Determining the architectures of macromolecular assemblies

[Frank Alber*](#), [Svetlana Dokudovskaya*](#), [Liesbeth M. Veenhoff*](#), [Wenzhu Zhang](#), Julia Kipper, [Damien Devos](#), Adisetyantari Suprpto, Orit Karni-Schmidt, [Rosemary Williams](#), [Brian T. Chait](#), [Michael P. Rout](#), and [Andrej Sali](#)
Nature 450, 683-694, 2007.

The molecular architecture of the nuclear pore complex

[Frank Alber*](#), [Svetlana Dokudovskaya*](#), [Liesbeth M. Veenhoff*](#), [Wenzhu Zhang](#), Julia Kipper, [Damien Devos](#), Adisetyantari Suprpto, Orit Karni-Schmidt, [Rosemary Williams](#), [Brian T. Chait](#), [Andrej Sali](#), and [Michael P. Rout](#)
Nature 450, 695-701, 2007.

Localization volumes of all nups in .mrc format:



download and save .mrc files with right mouse button.

[all localization volumes combined](#) 456 proteins

[NUP192](#) 16 protein copies
[NUP188](#) 16 protein copies
[NUP170](#) 16 protein copies
[NUP159](#) 8 protein copies
[NUP157](#) 16 protein copies
[POM152](#) 16 protein copies
[NUP133](#) 16 protein copies
[NUP120](#) 16 protein copies
[NUP116](#) 8 protein copies
[NUP1](#) 8 protein copies
[NUP100](#) 8 protein copies
[NIC96-1](#) 16 protein copies
[NIC96-2](#) 16 protein copies
[NPS1-1](#) 16 protein copies
[NPS1-2](#) 16 protein copies

[NUP85](#) 16 protein copies
[NUP84](#) 16 protein copies
[NUP82-1](#) 8 protein copies
[NUP82-2](#) 8 protein copies
[NUP145C](#) 16 protein copies
[NDC1](#) 16 protein copies
[GLE1](#) 16 protein copies
[NUP60](#) 8 protein copies
[NUP59](#) 16 protein copies
[NUP57](#) 16 protein copies
[NUP53](#) 16 protein copies
[NUP145N-1](#) 8 protein copies
[NUP145N-2](#) 8 protein copies
[NUP49](#) 16 protein copies
[NUP42](#) 8 protein copies
[GLE2](#) 16 protein copies
[SEH1](#) 16 protein copies
[POM34](#) 16 protein copies
[SEC13](#) 16 protein copies

Contact Frequency Information

Contact frequencies of all pairs of nups:

[CONTACTFREQUENCIES.txt](#)



Contact frequencies of specific nups sorted by their values:

[NUP192](#)
[NUP188](#)
[NUP170](#)
[NUP159](#)
[NUP157](#)
[POM152](#)
[NUP133](#)
[NUP120](#)
[NUP116](#)
[NUP1](#)
[NUP100](#)
[NIC96](#)
[NPS1](#)
[NUP85](#)
[NUP84](#)
[NUP82](#)

[NUP145C](#)
[NDC1](#)
[GLE1](#)
[NUP60](#)
[NUP59](#)
[NUP57](#)
[NUP53](#)
[NUP145N](#)
[NUP49](#)
[NUP42](#)
[GLE2](#)
[SEH1](#)
[POM34](#)
[SEC13](#)

Contact frequencies that are statistically significant increased (P-val <0.001) from their initial value (based on all composites):

[increased frequencies](#)

Contact frequencies that are statistically significant reduced (P-val <0.001) from their initial value (based on all composites):

[reduced frequencies](#)

Software

To enable the computations described in these papers, we developed the RESTRAINER module that will be available as part of the Integrative Modeling Platform ([IMP](#)) software (<http://salilab.org/imp/>).