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MAS Digital Fabrication

CloudTable, *mas dfab mini-projet II*

Yuta Akizuki, Nicolas Feihl

Tutors: Marirena Kladefrira,
and Mathias Leschok,
from dbt ETH

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DARCH

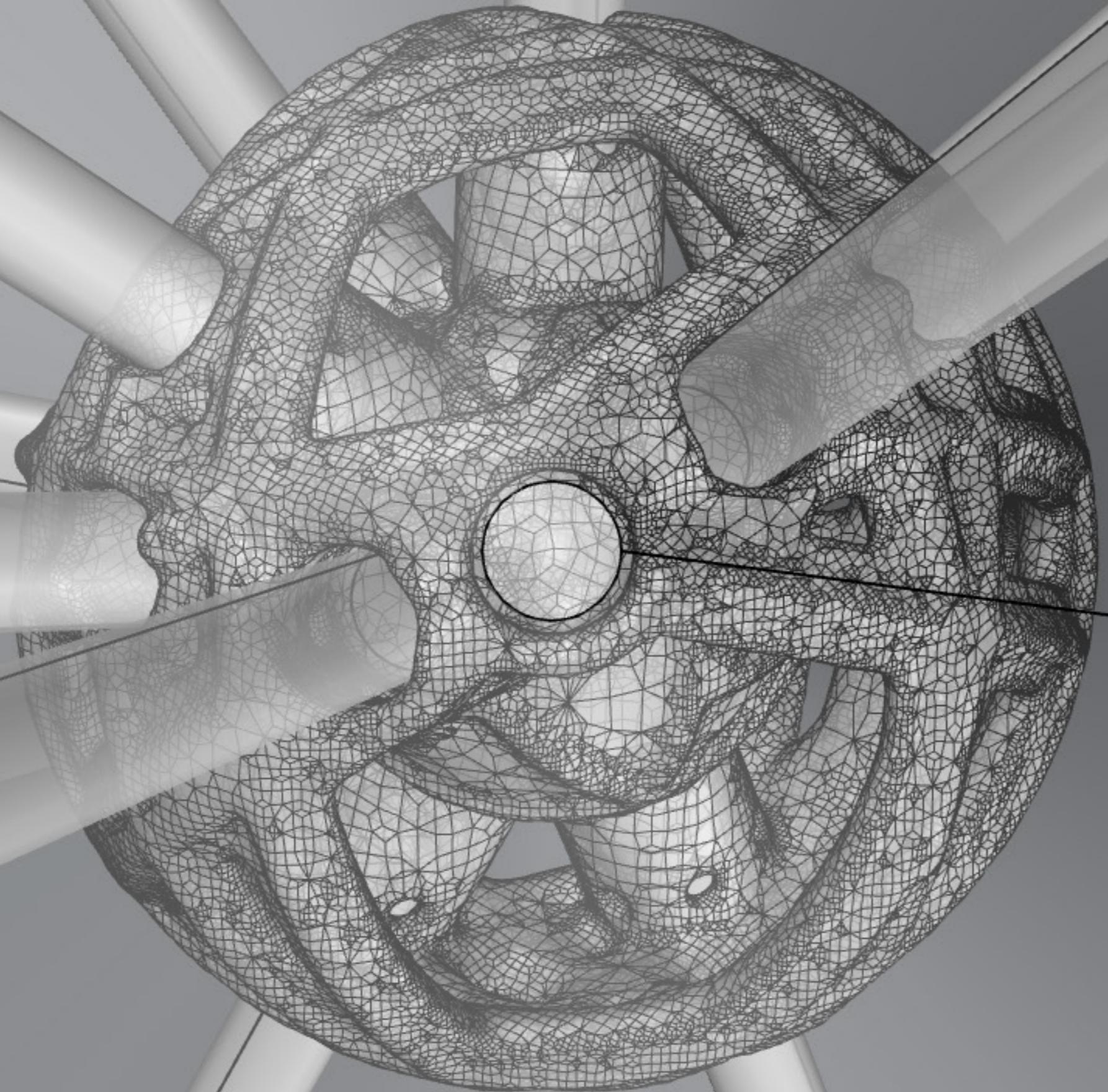
Departement Architektur

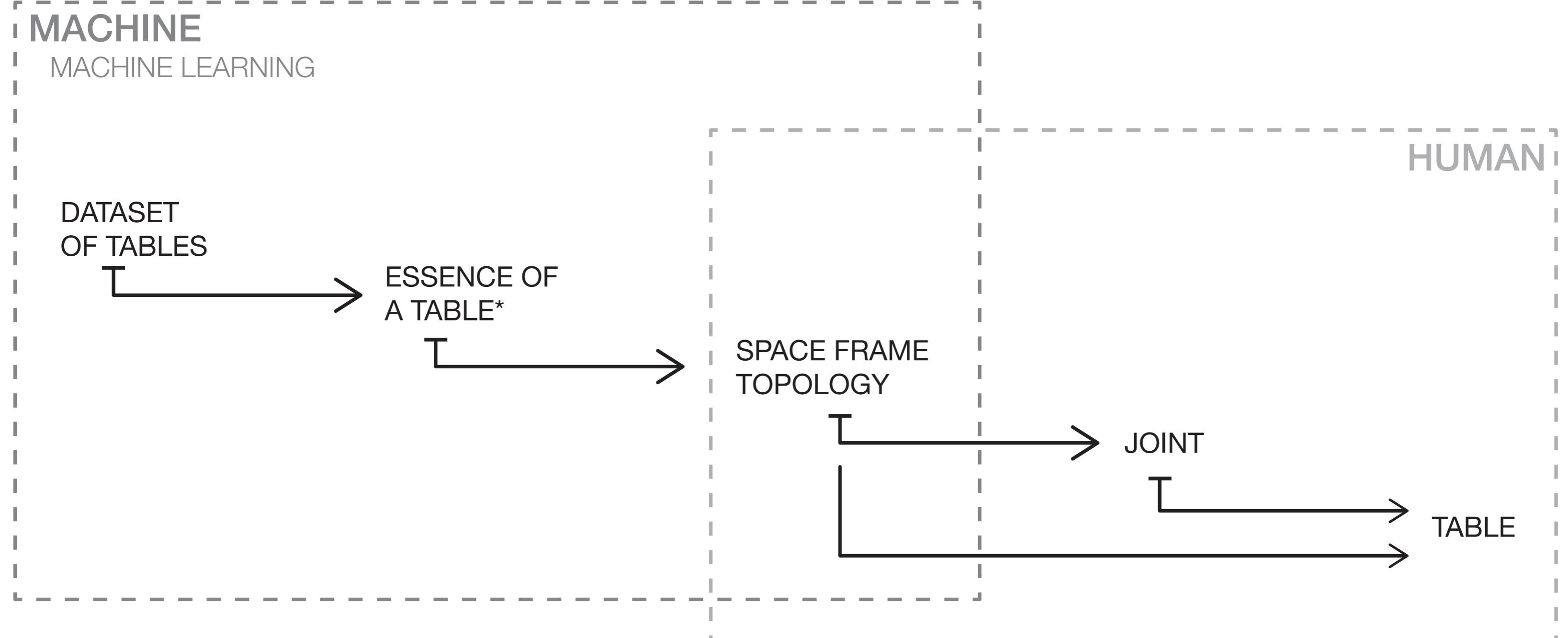


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Faculty of Architecture / ETH Zurich

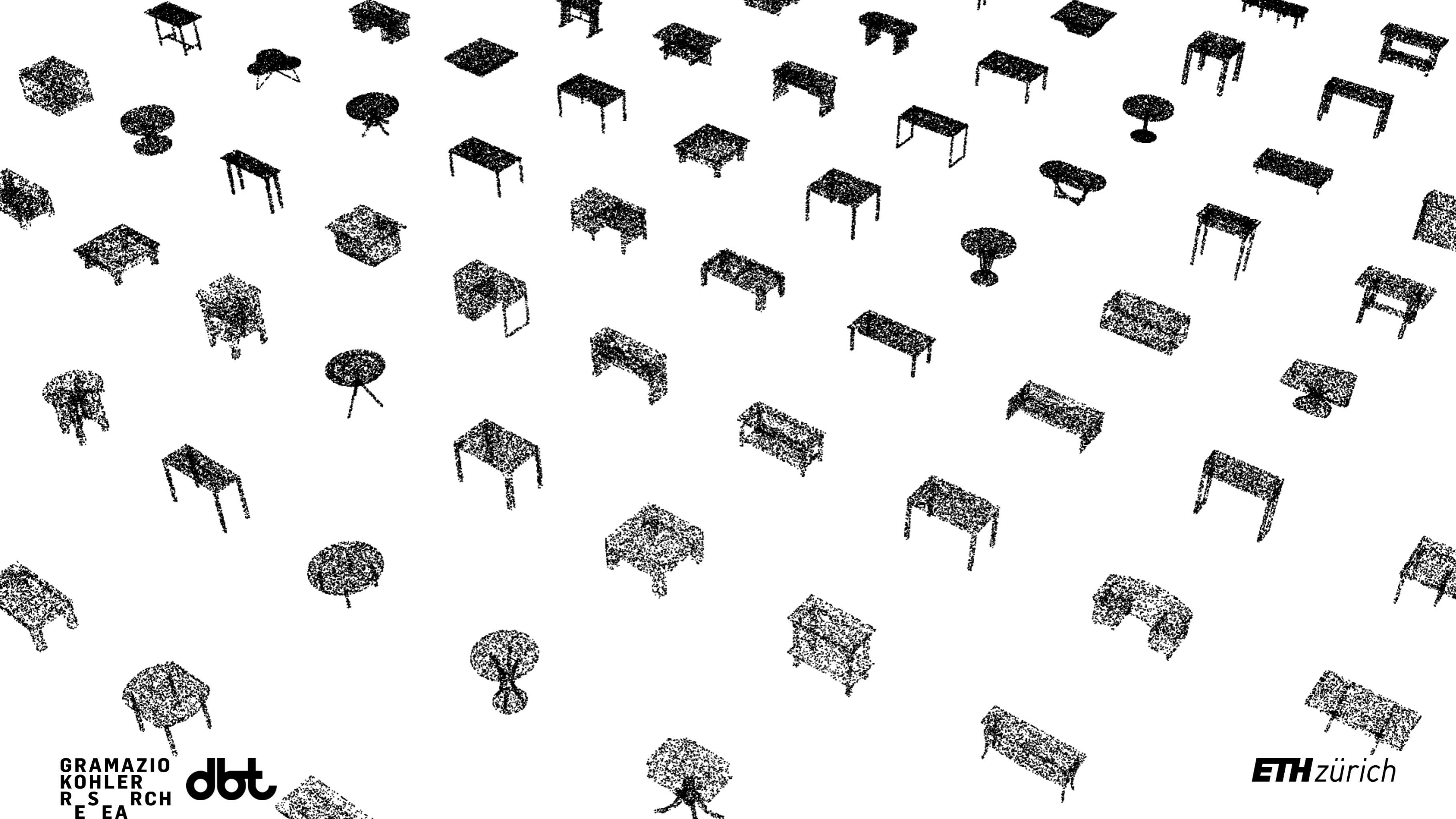
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* for a computer



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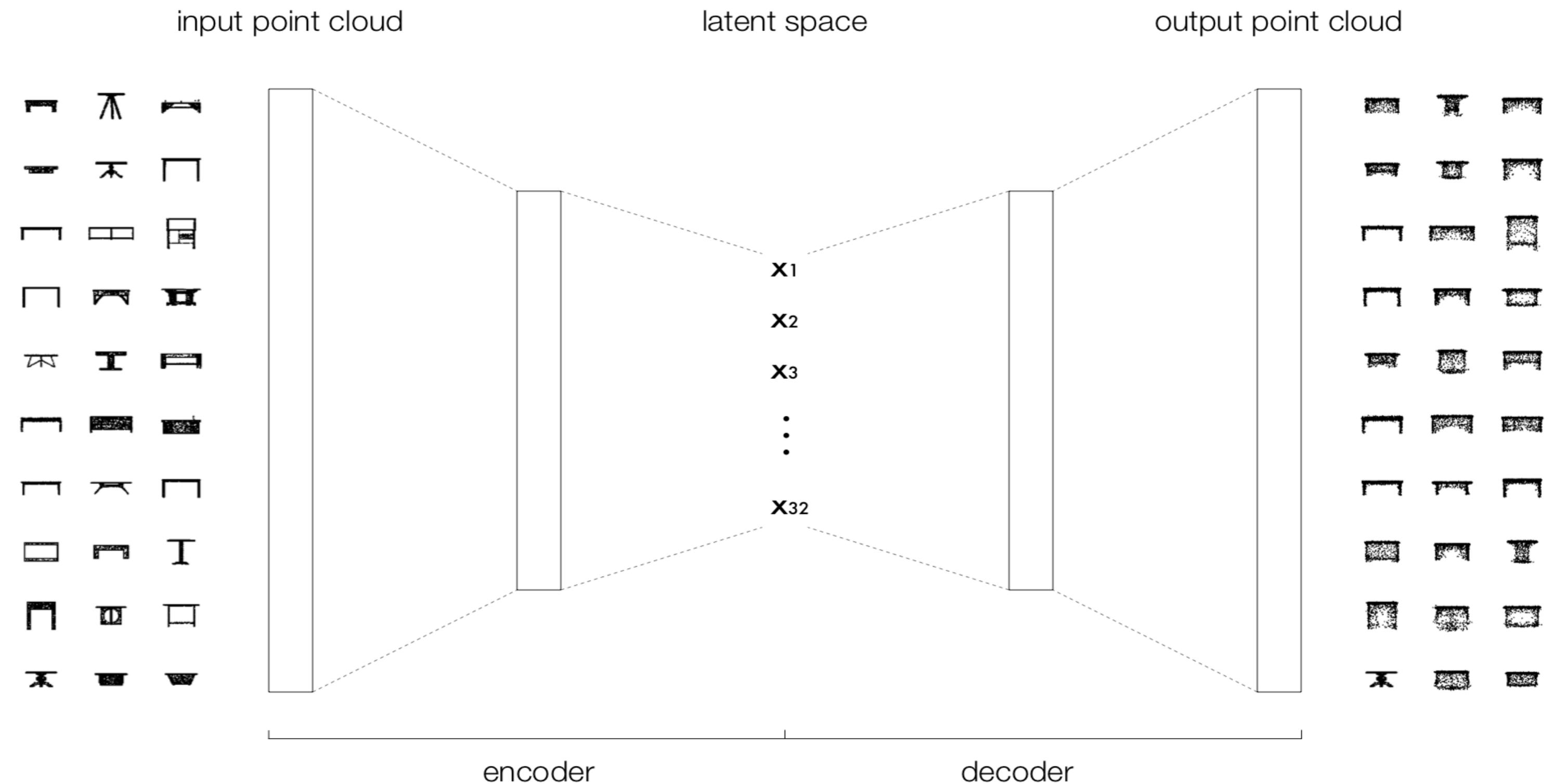
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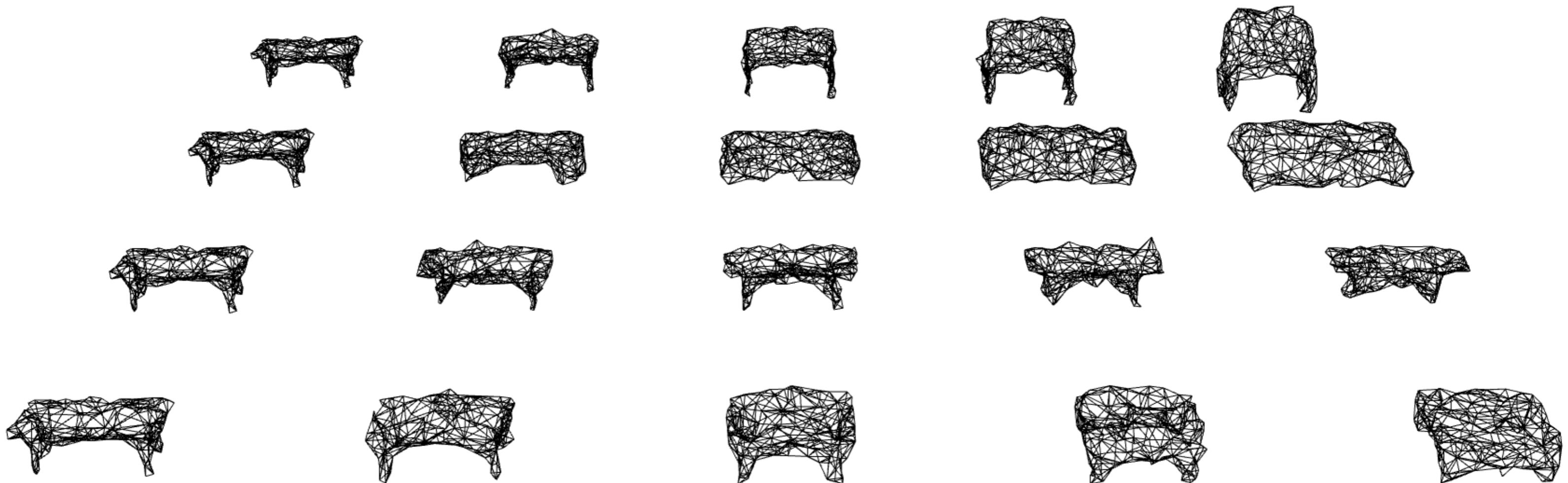
Main Technical References

- «DeepCloud», 2018, Ardavan Bidgoli and Pedro Veloso

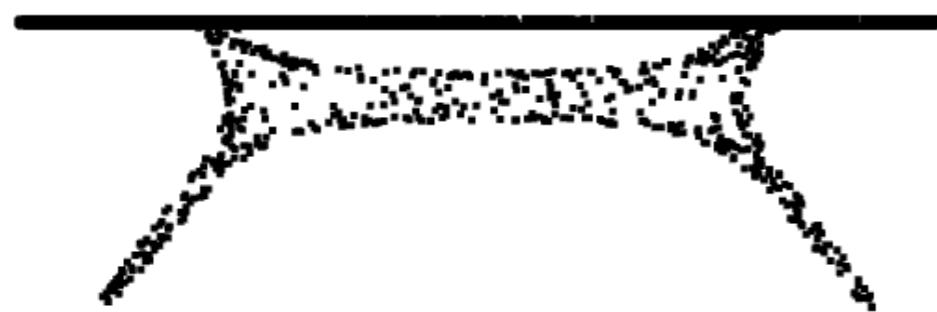
- «Learning Representations and Generative Models for 3D Point Clouds», 2018, Panos Achlioptas et al.



Family of tables



Original representation



Autoencoded table

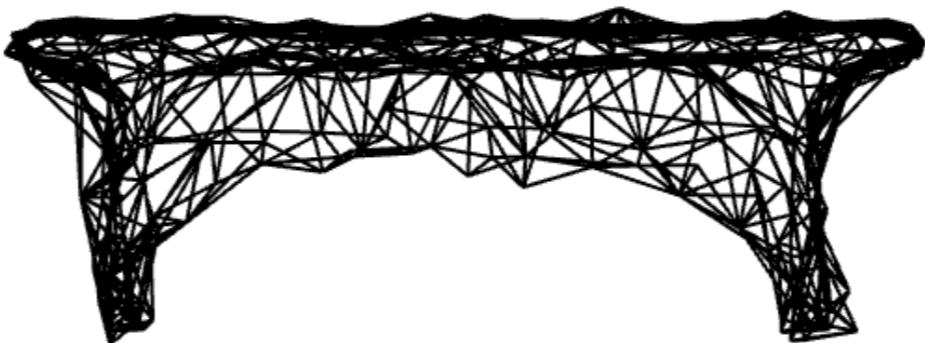
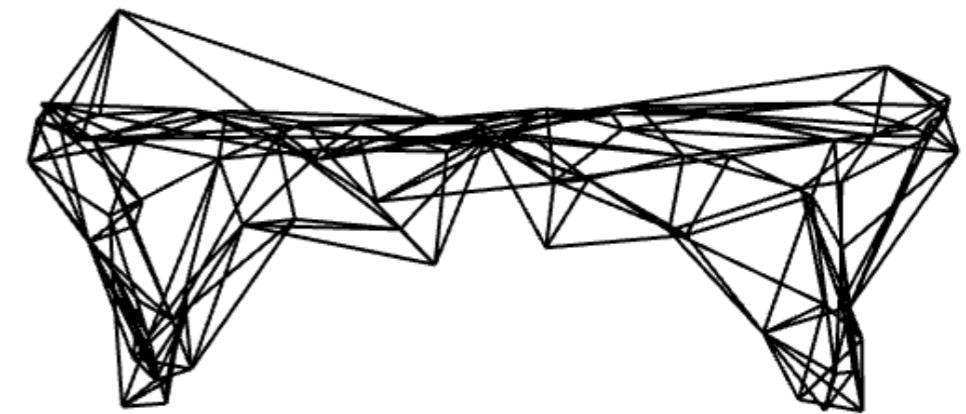
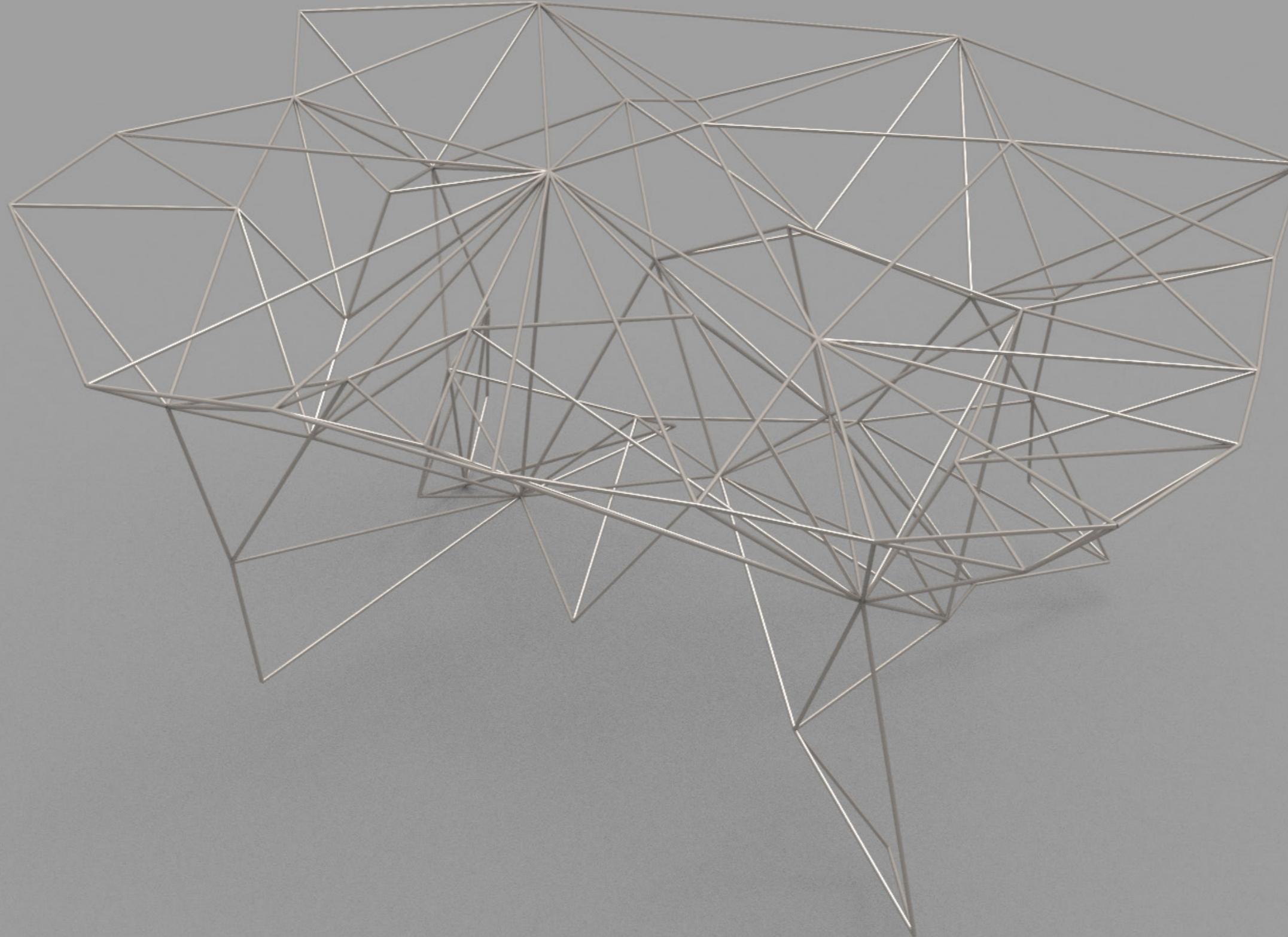
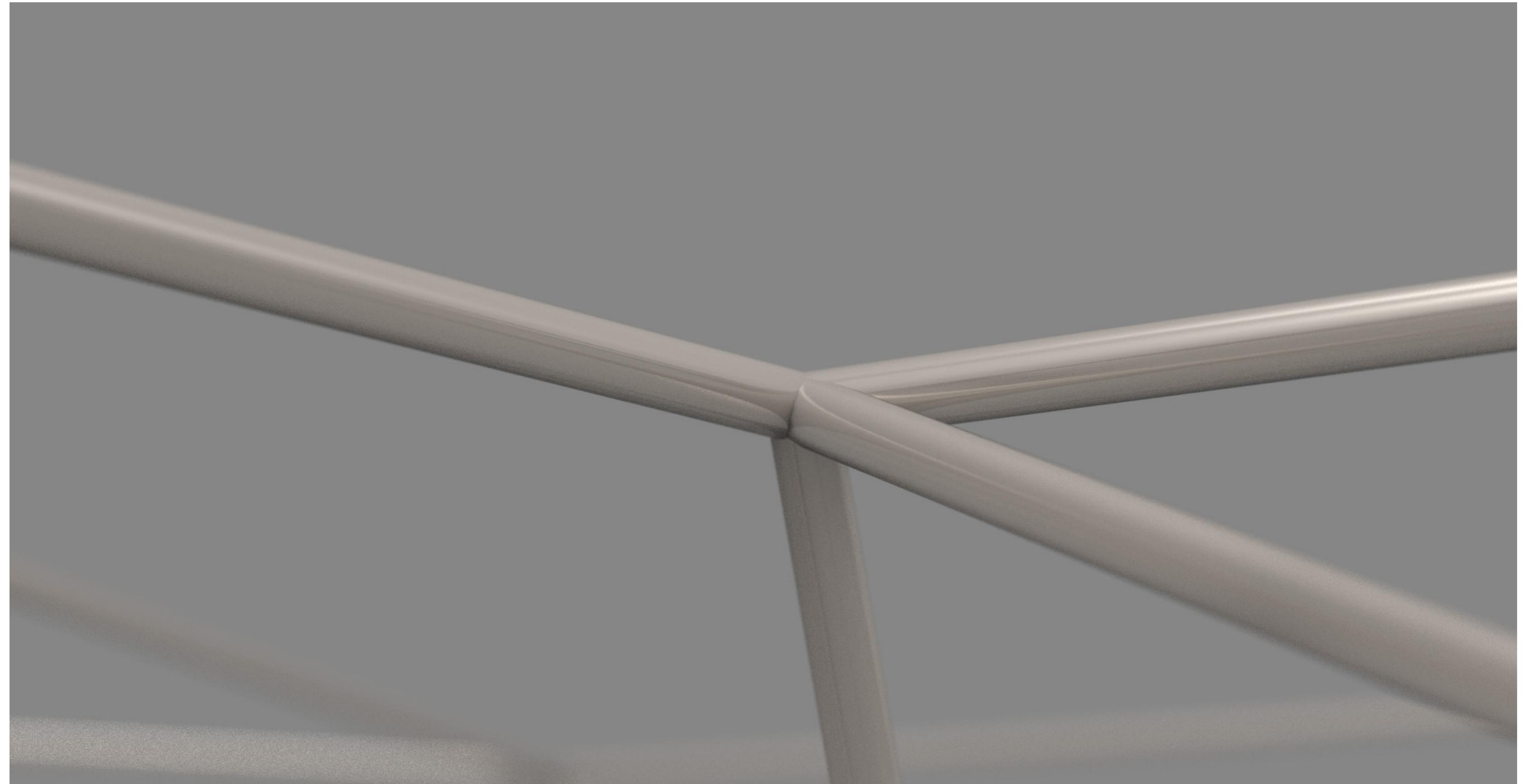


Table for physical world



Finite number of rods
Angular limit between connections
Discard small rods
Maintain overall shape

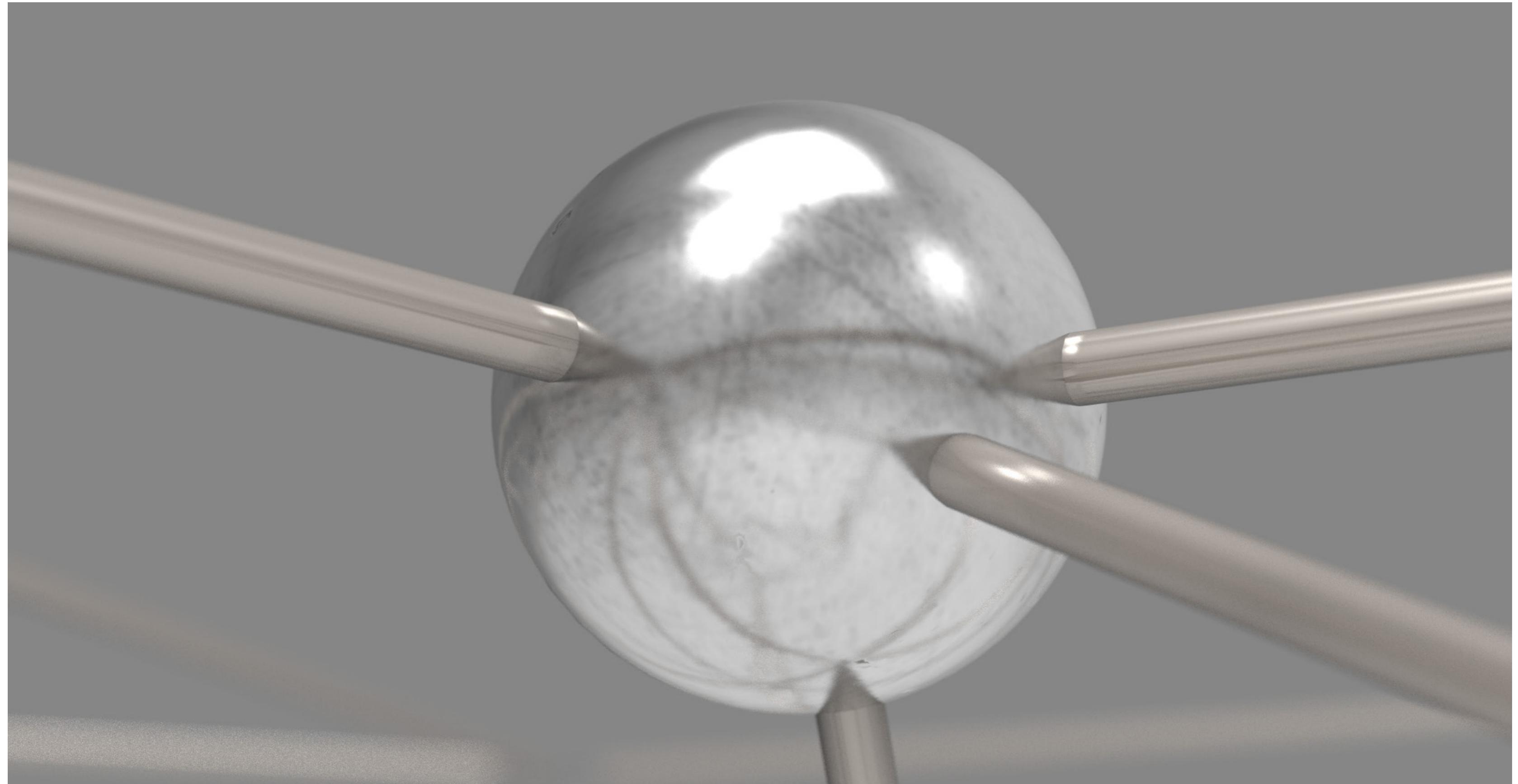




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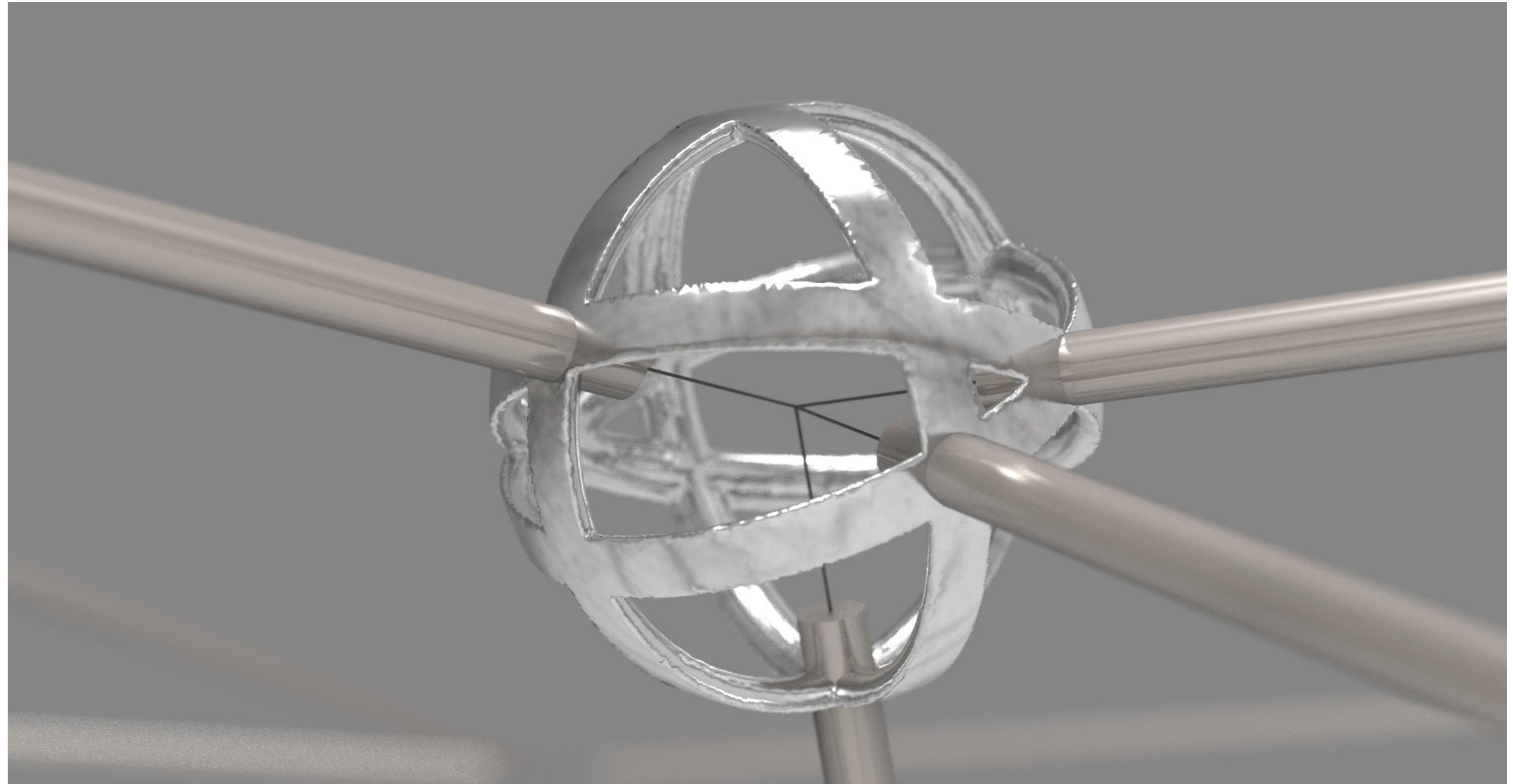
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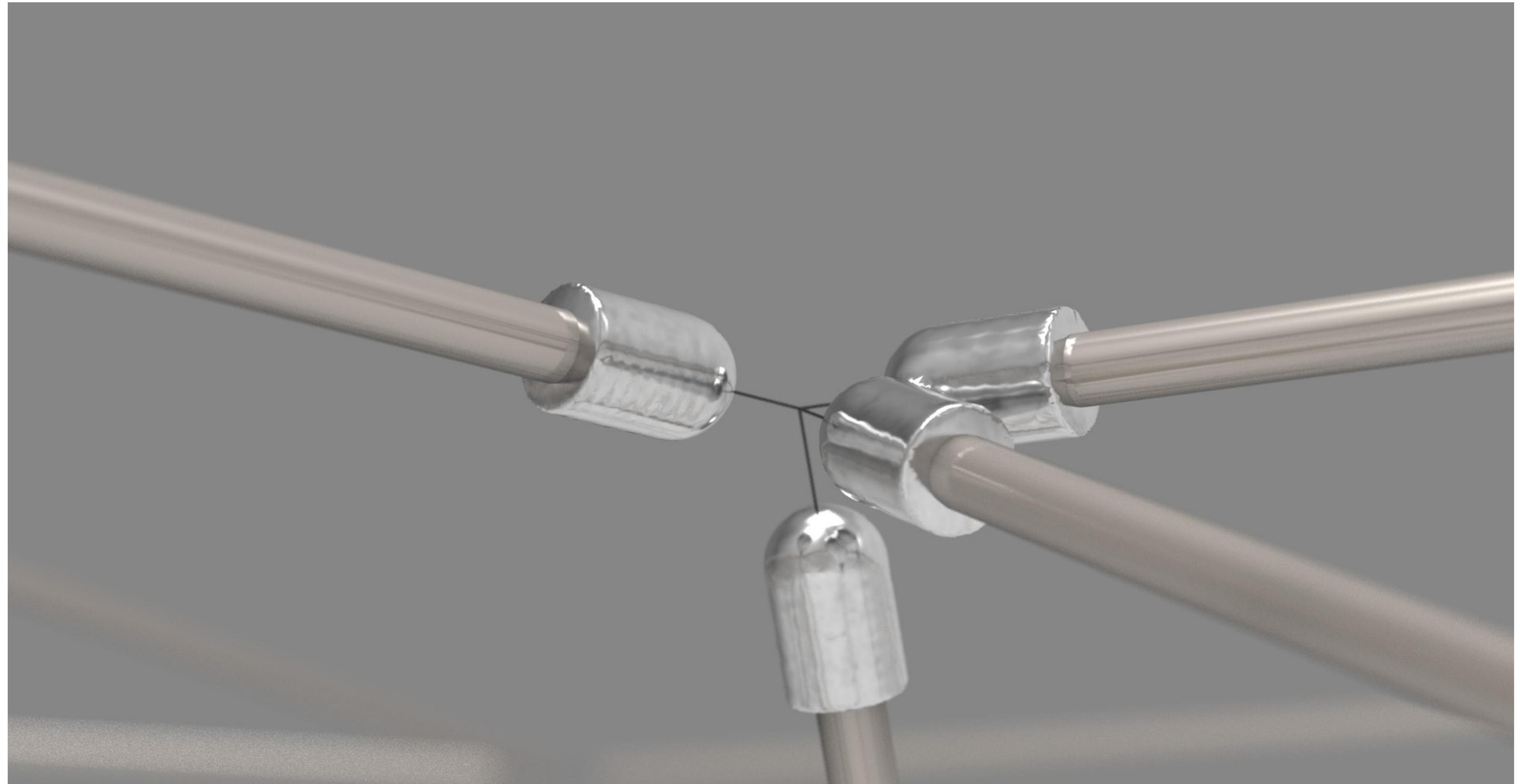


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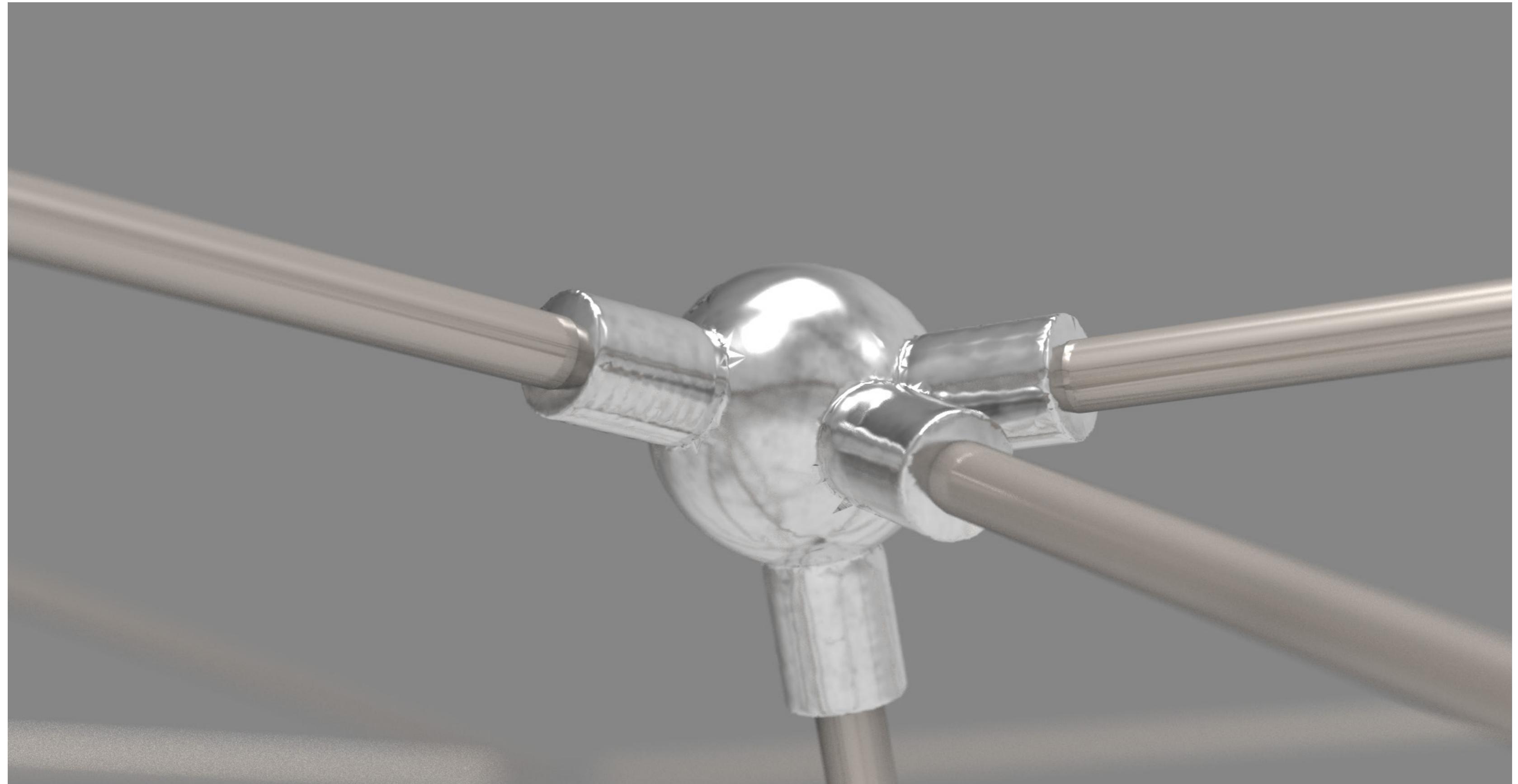




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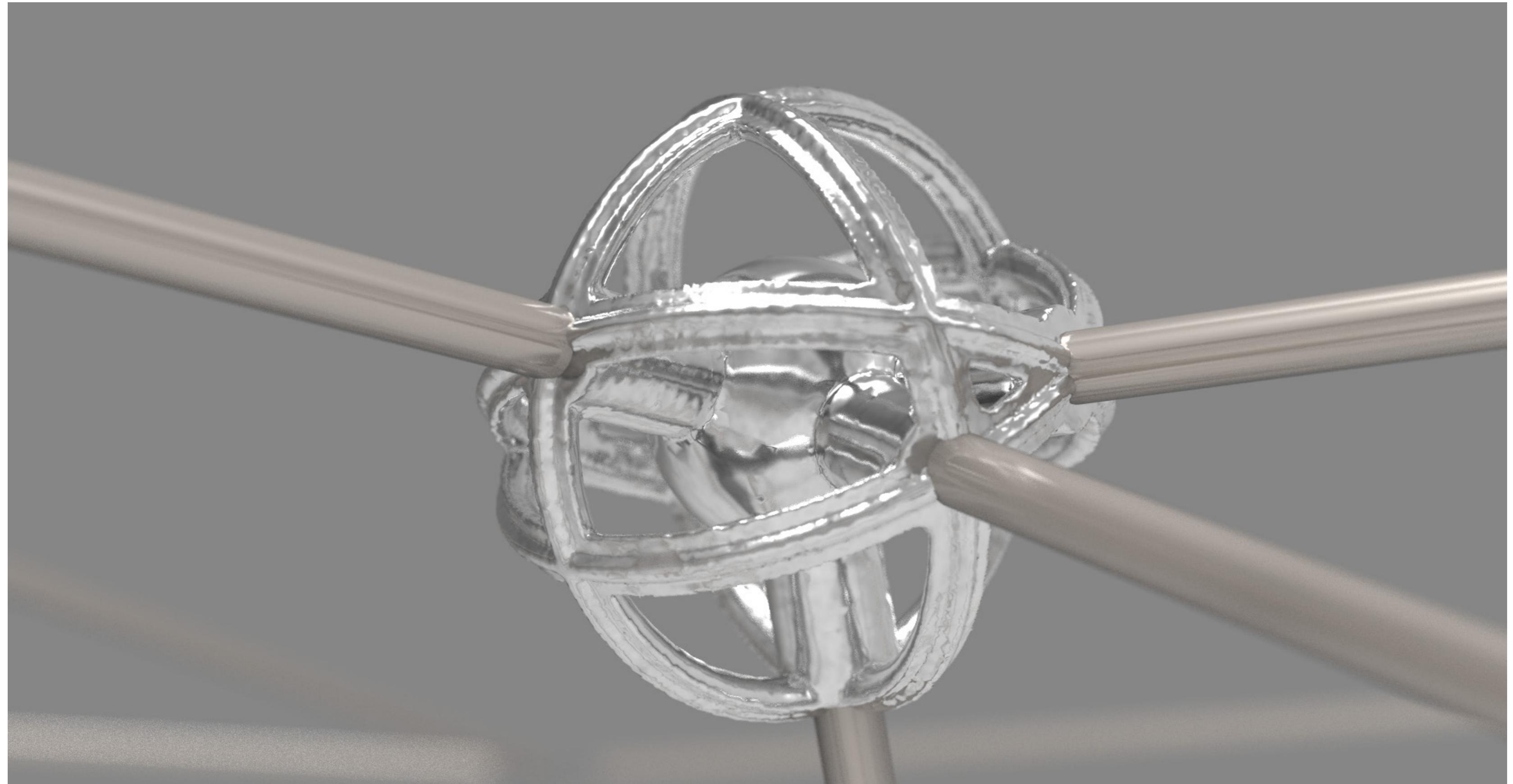
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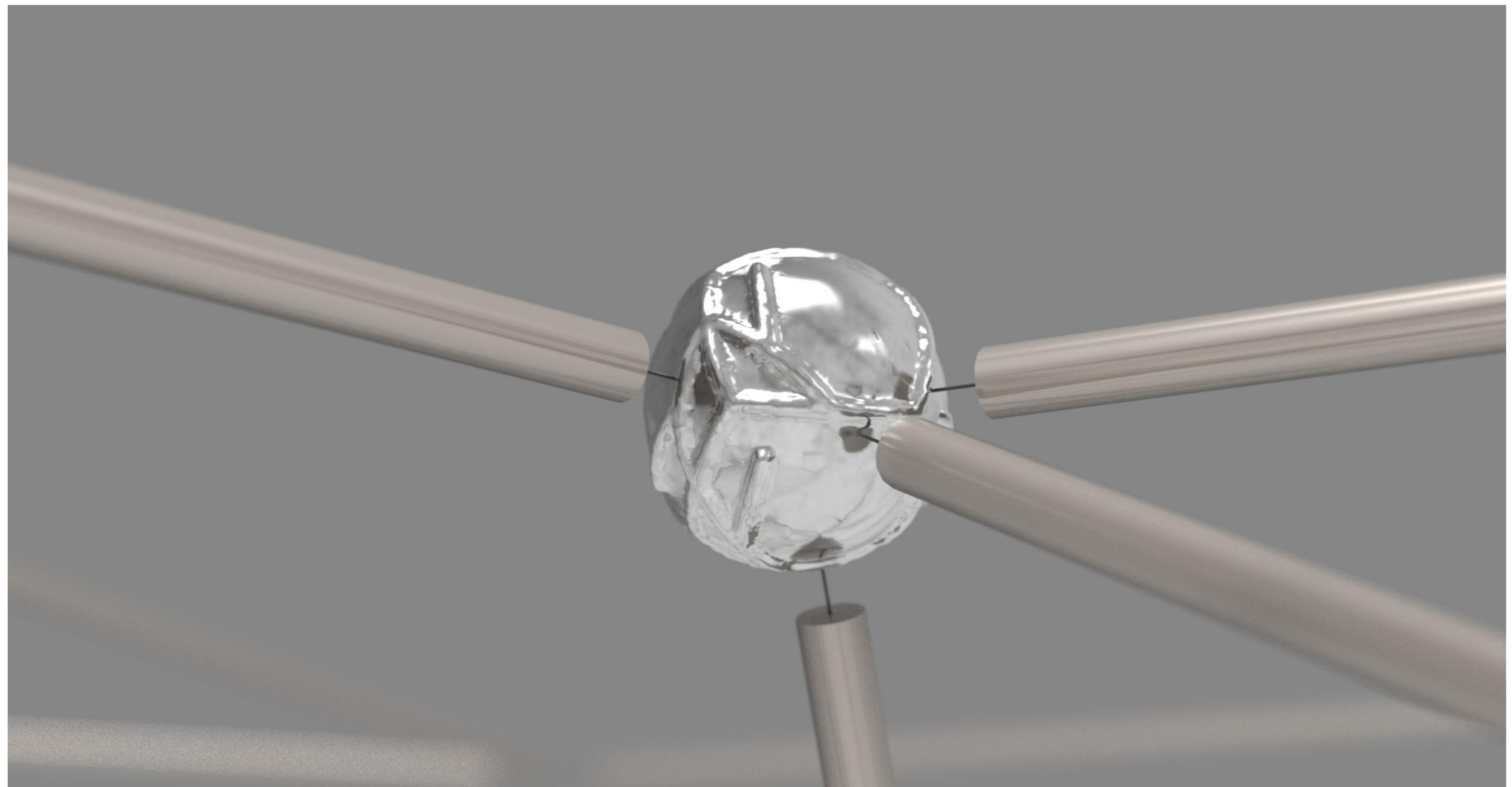
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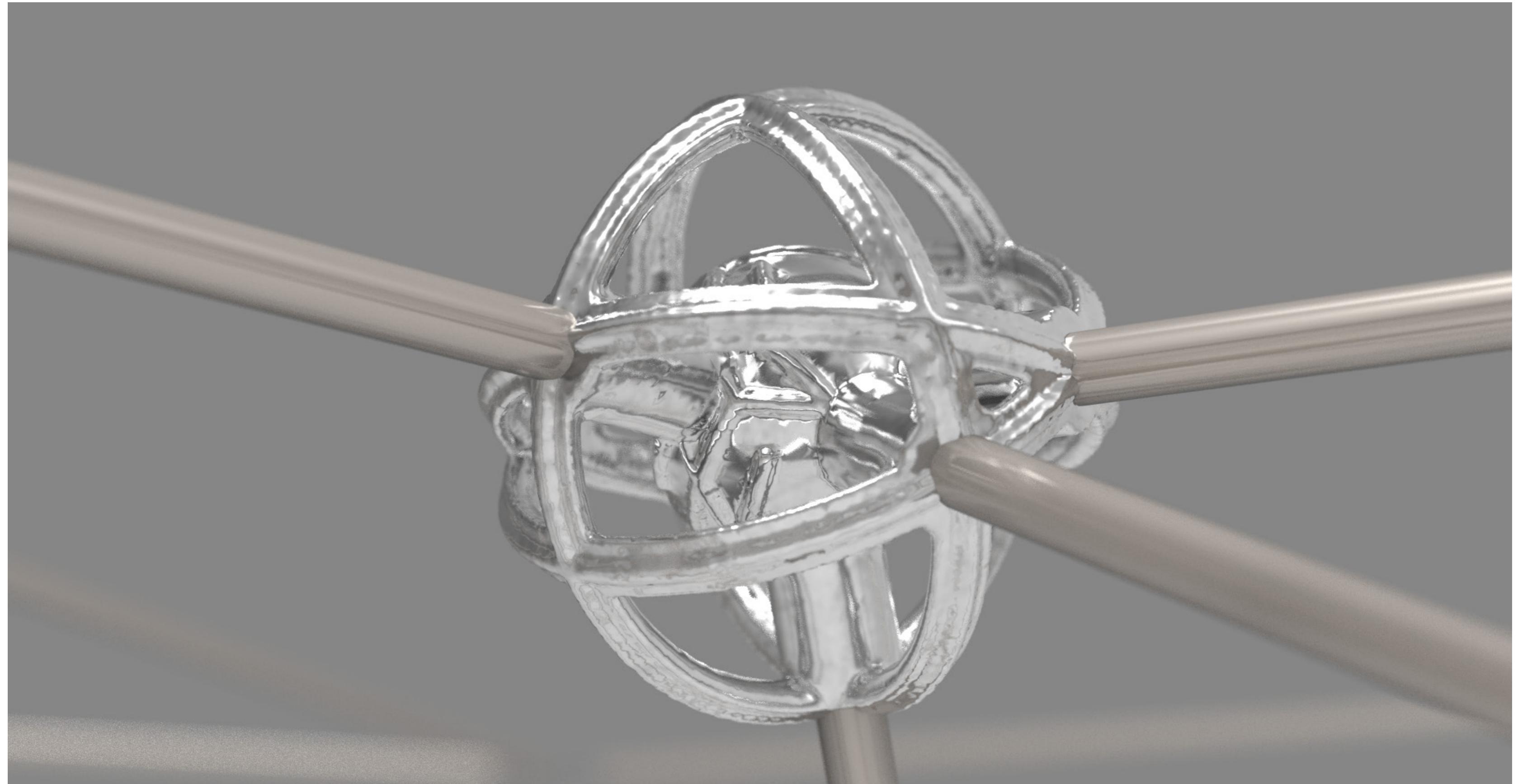


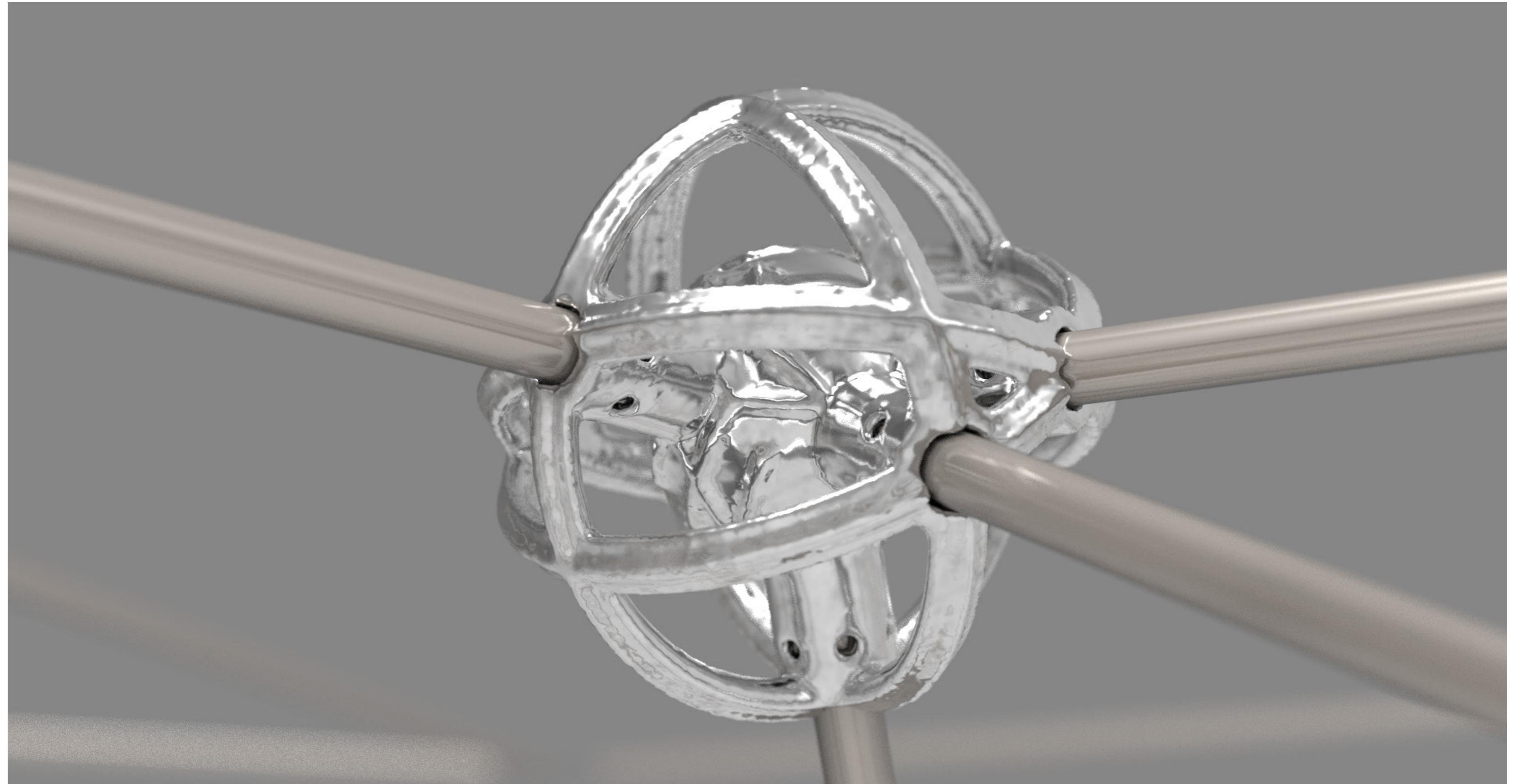
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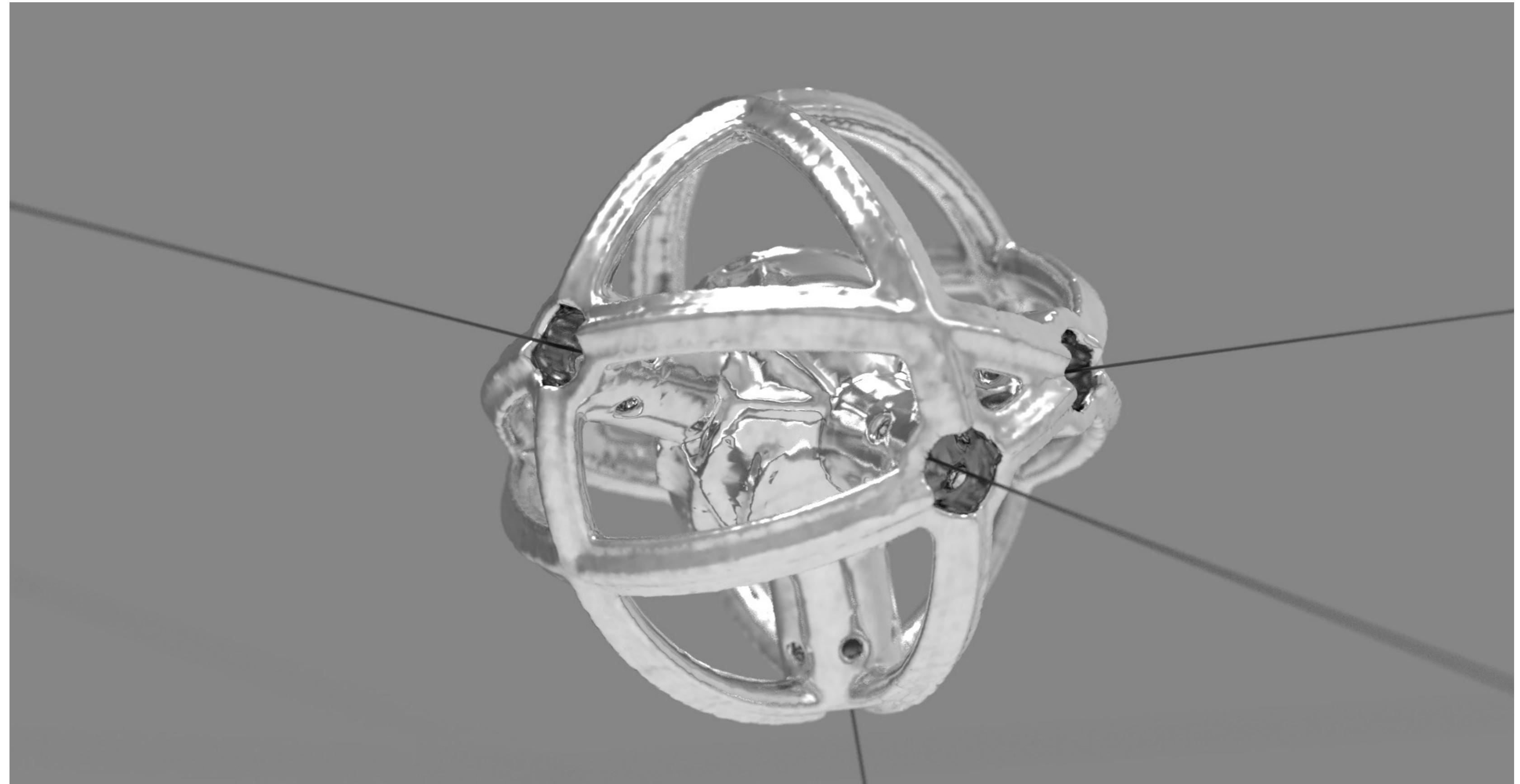
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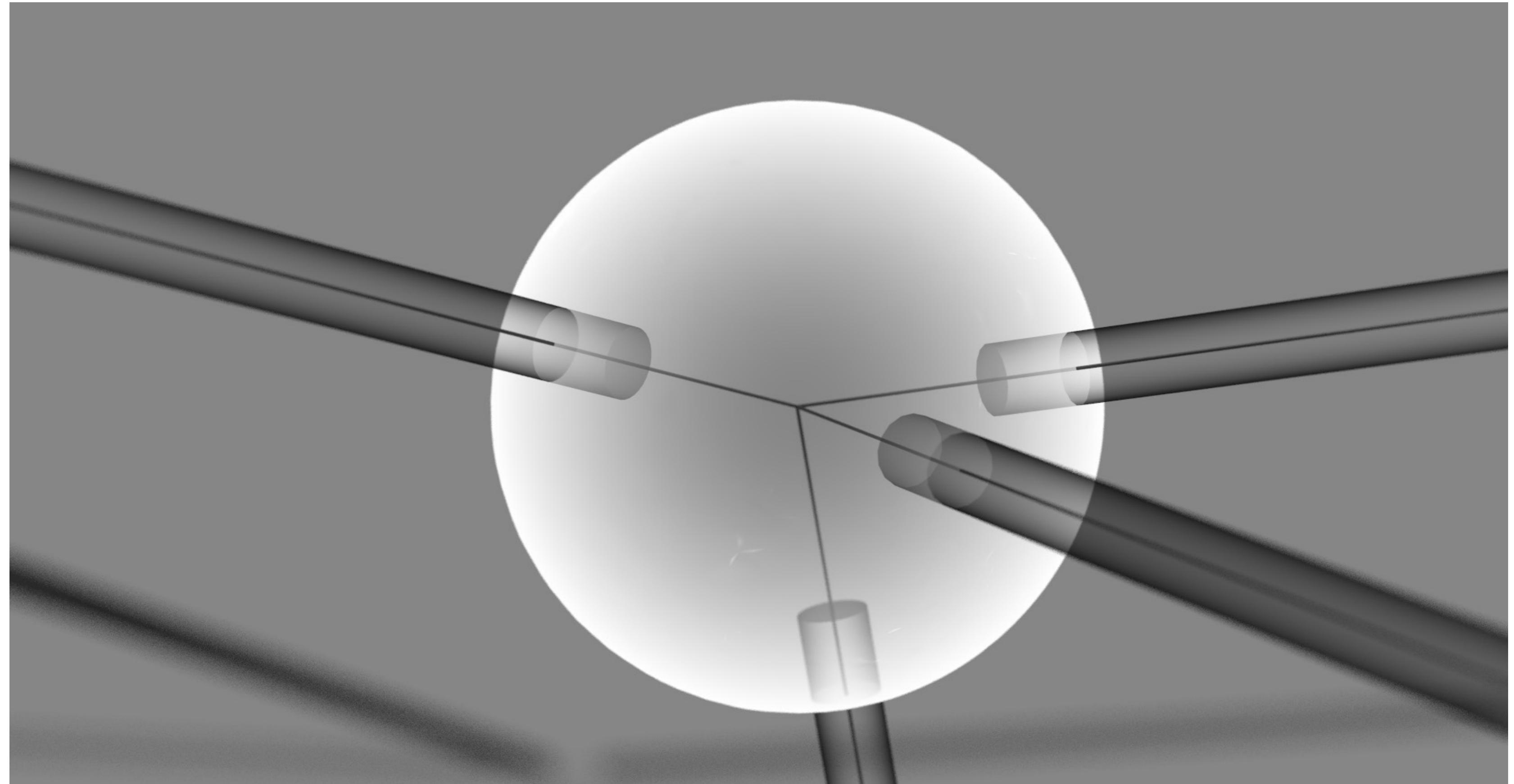


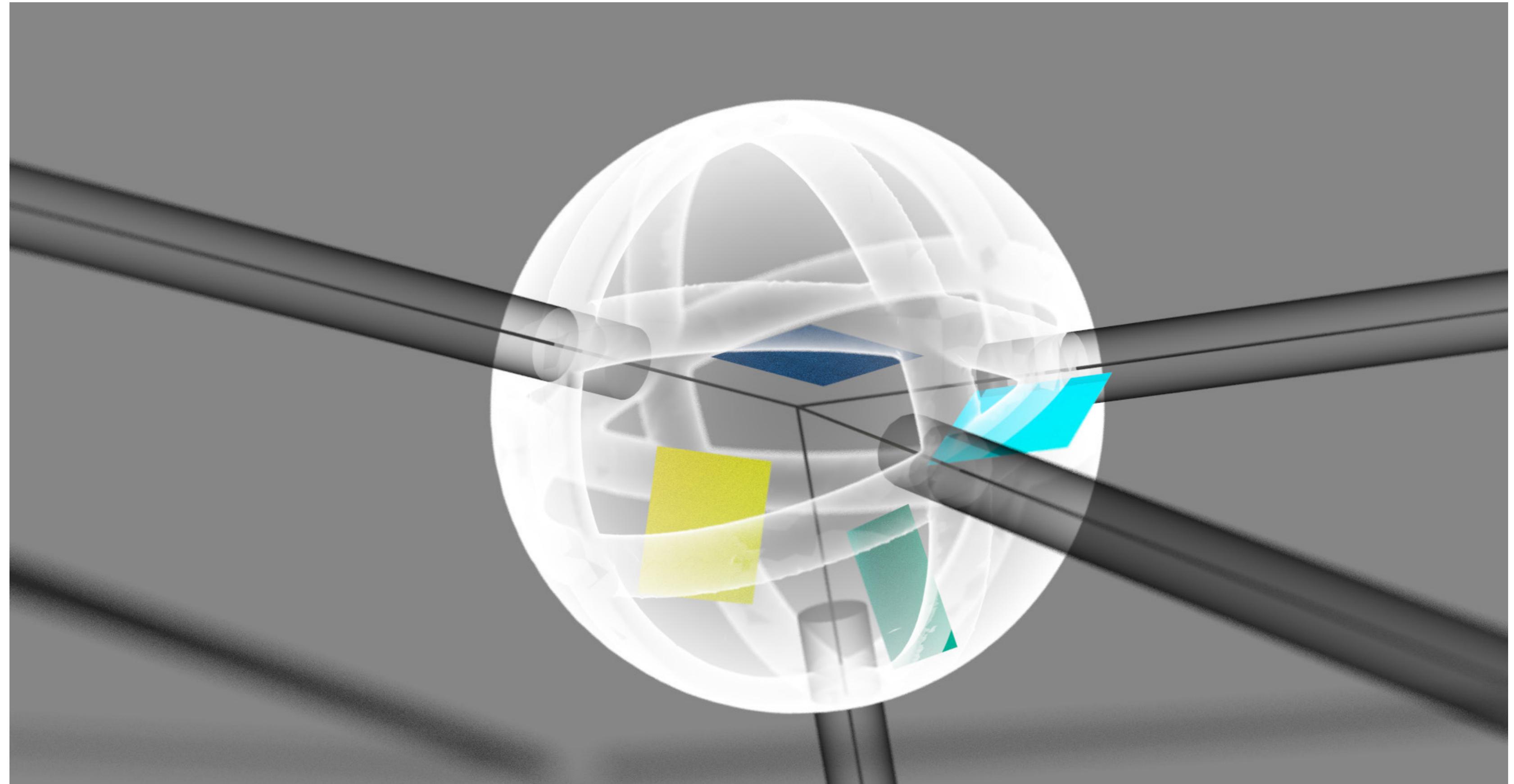


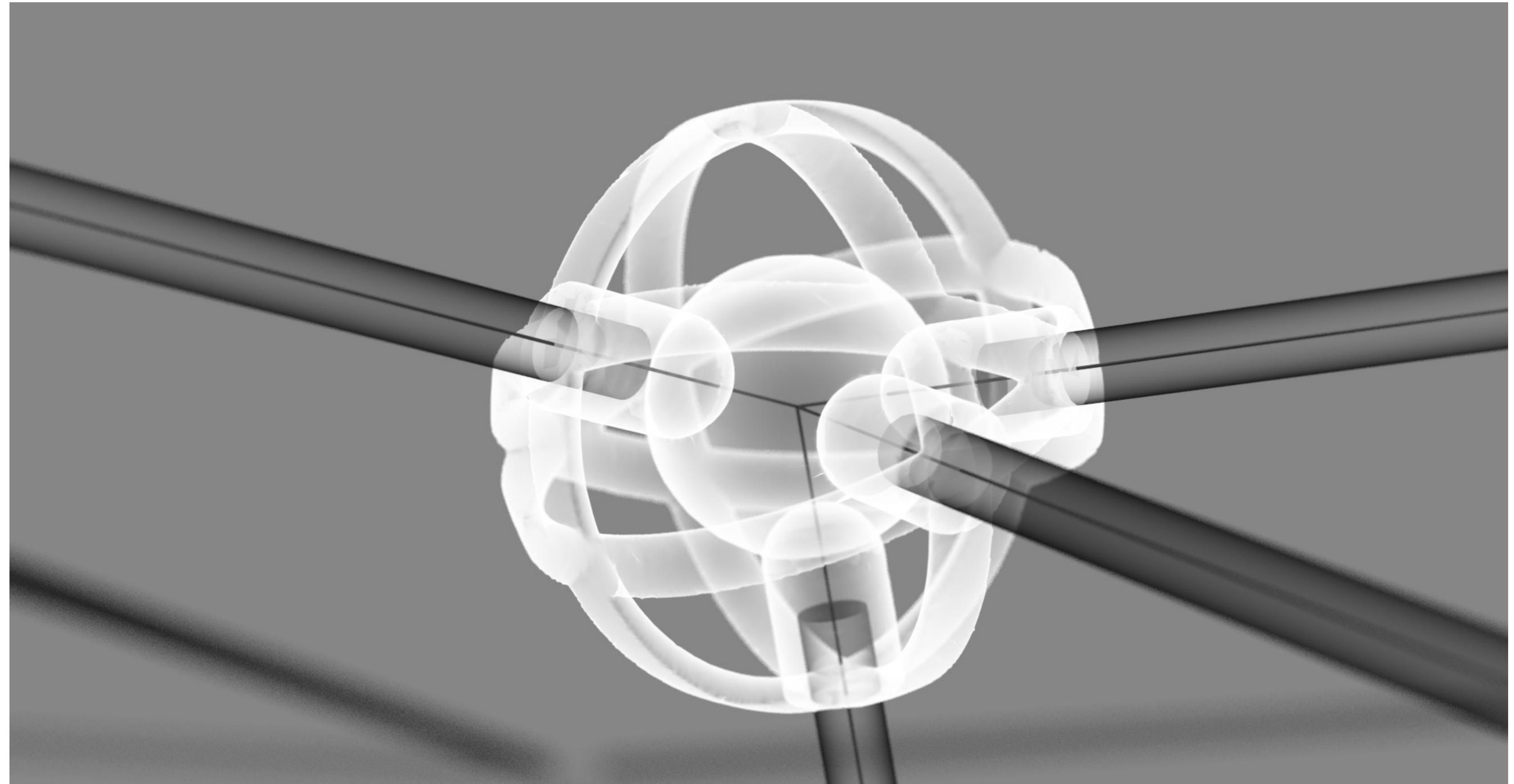
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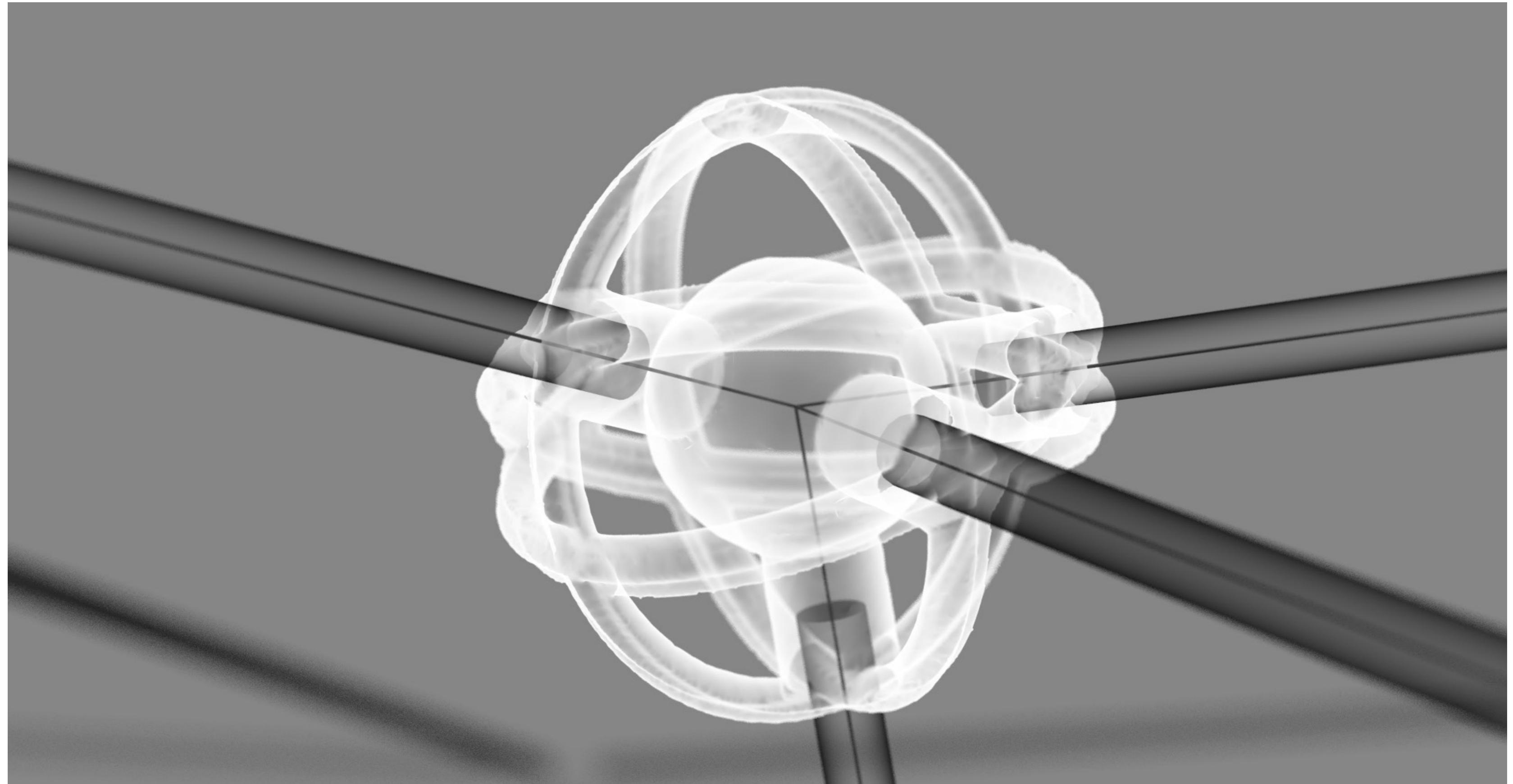




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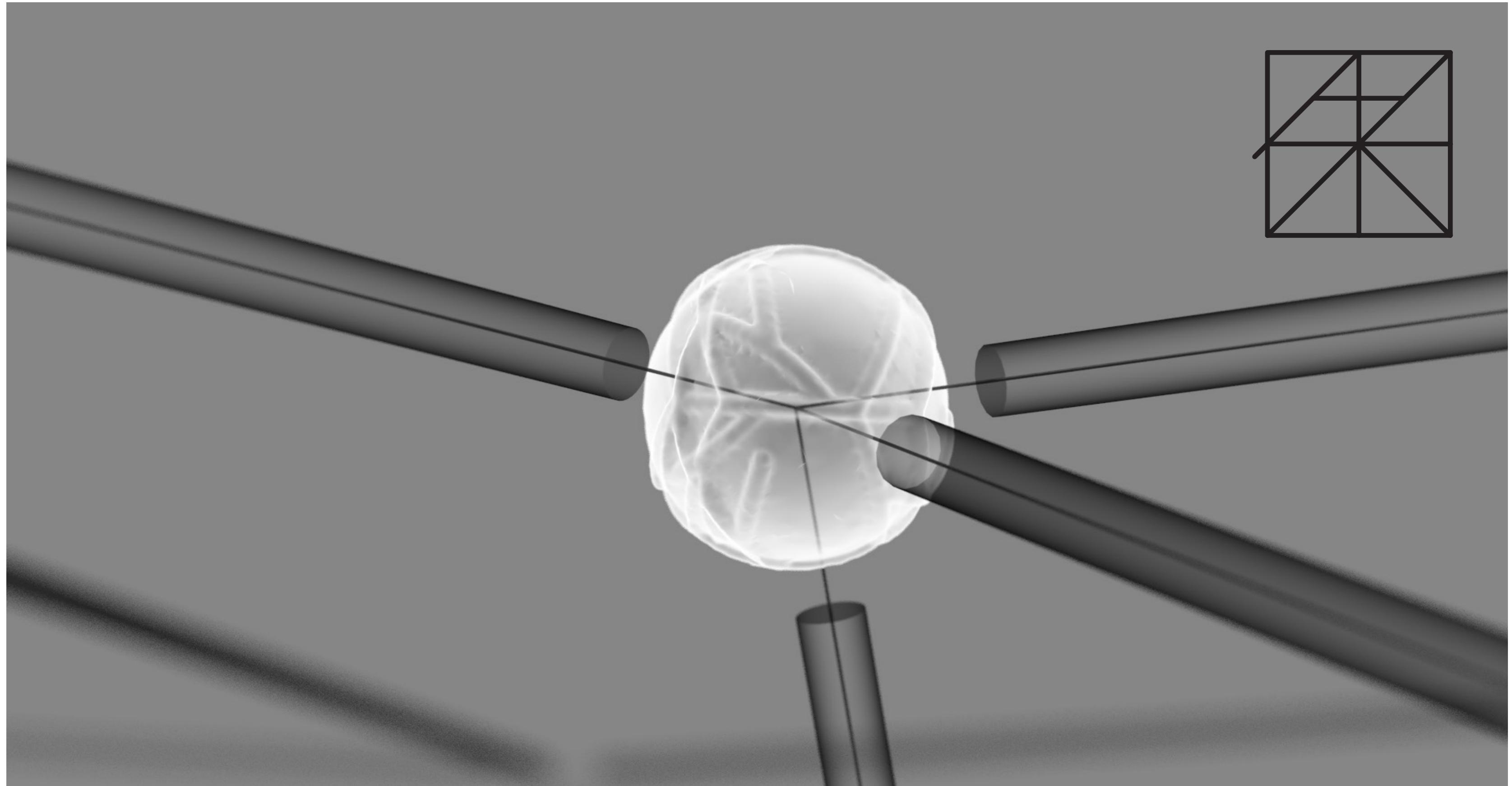
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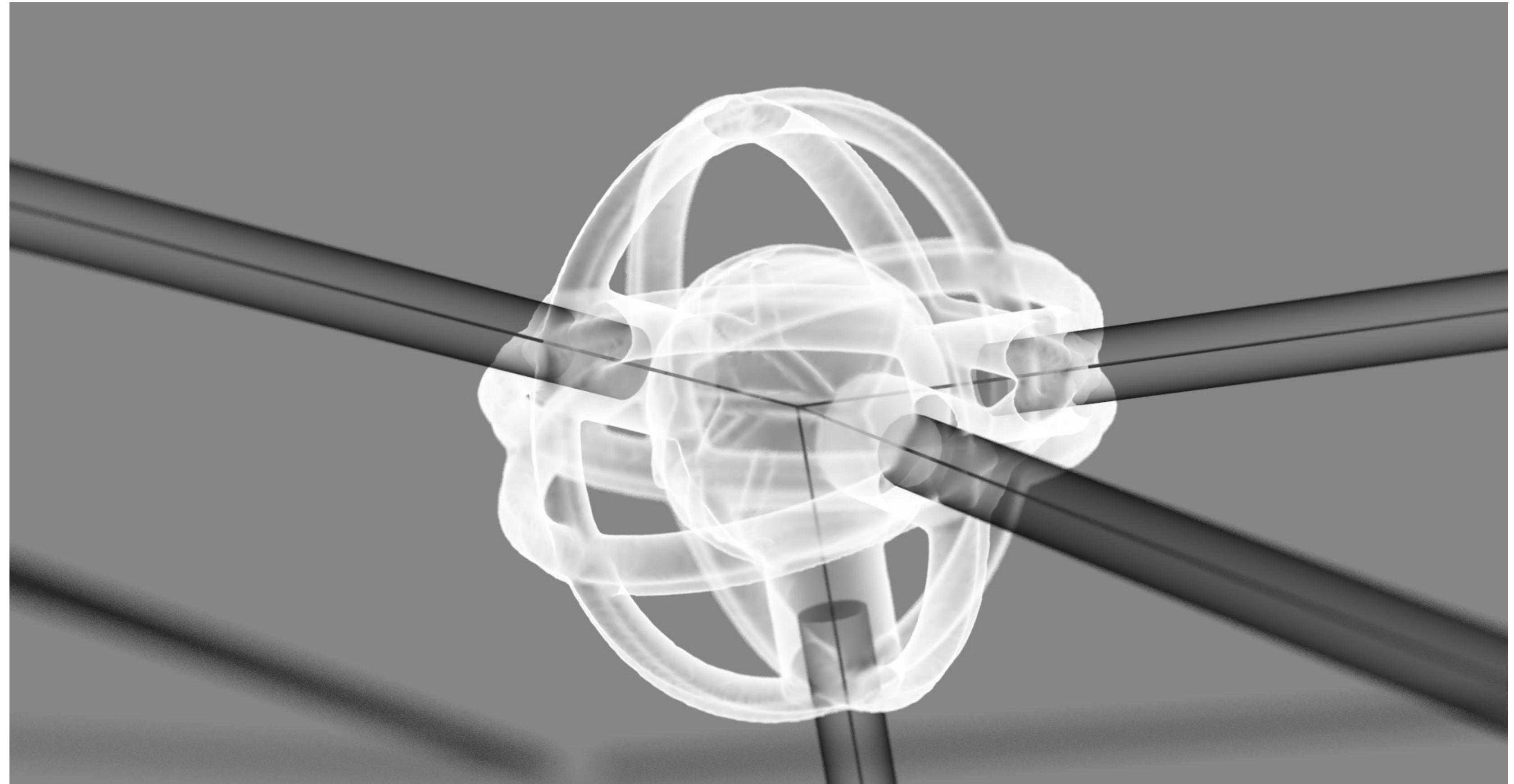


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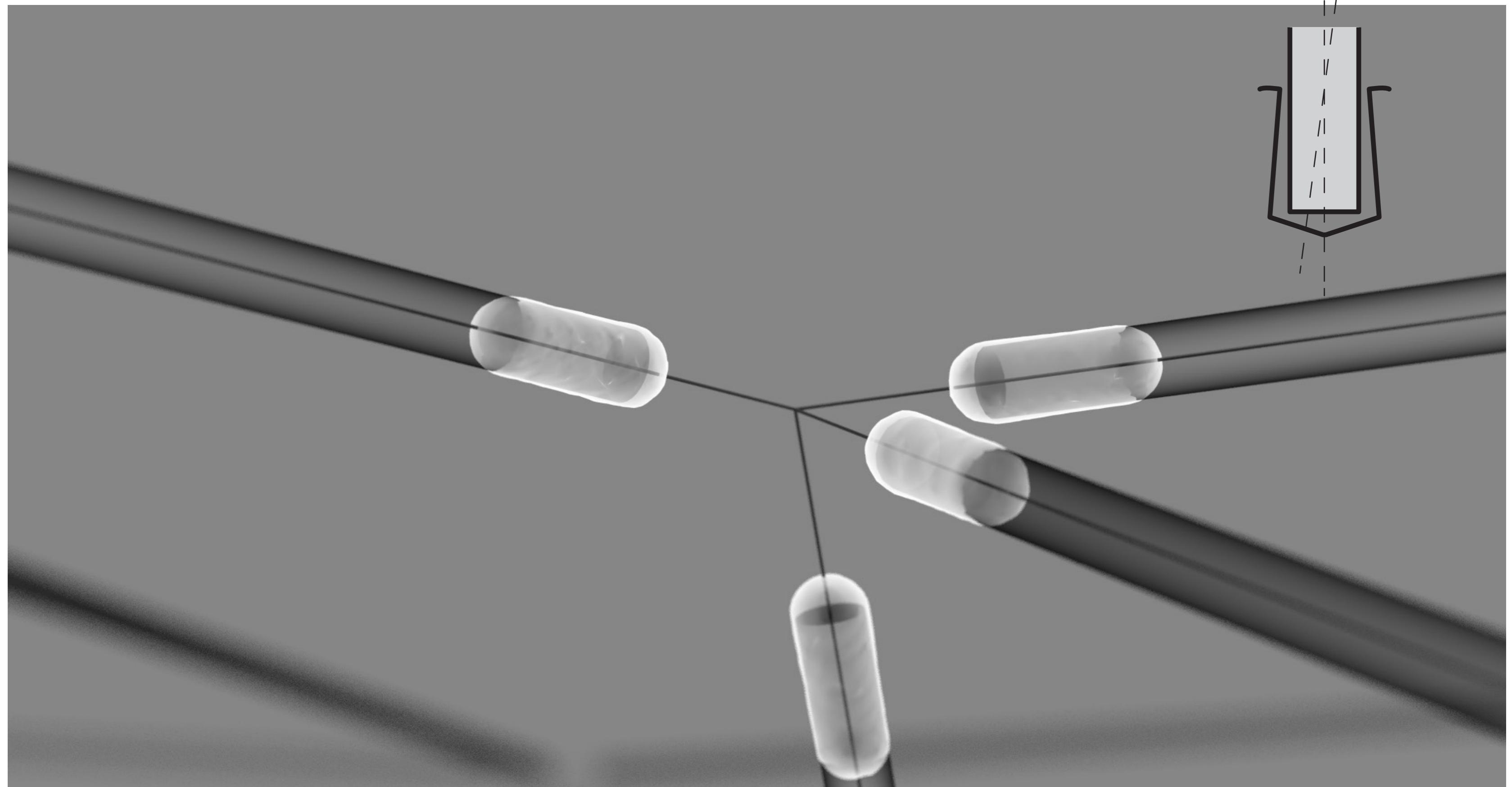


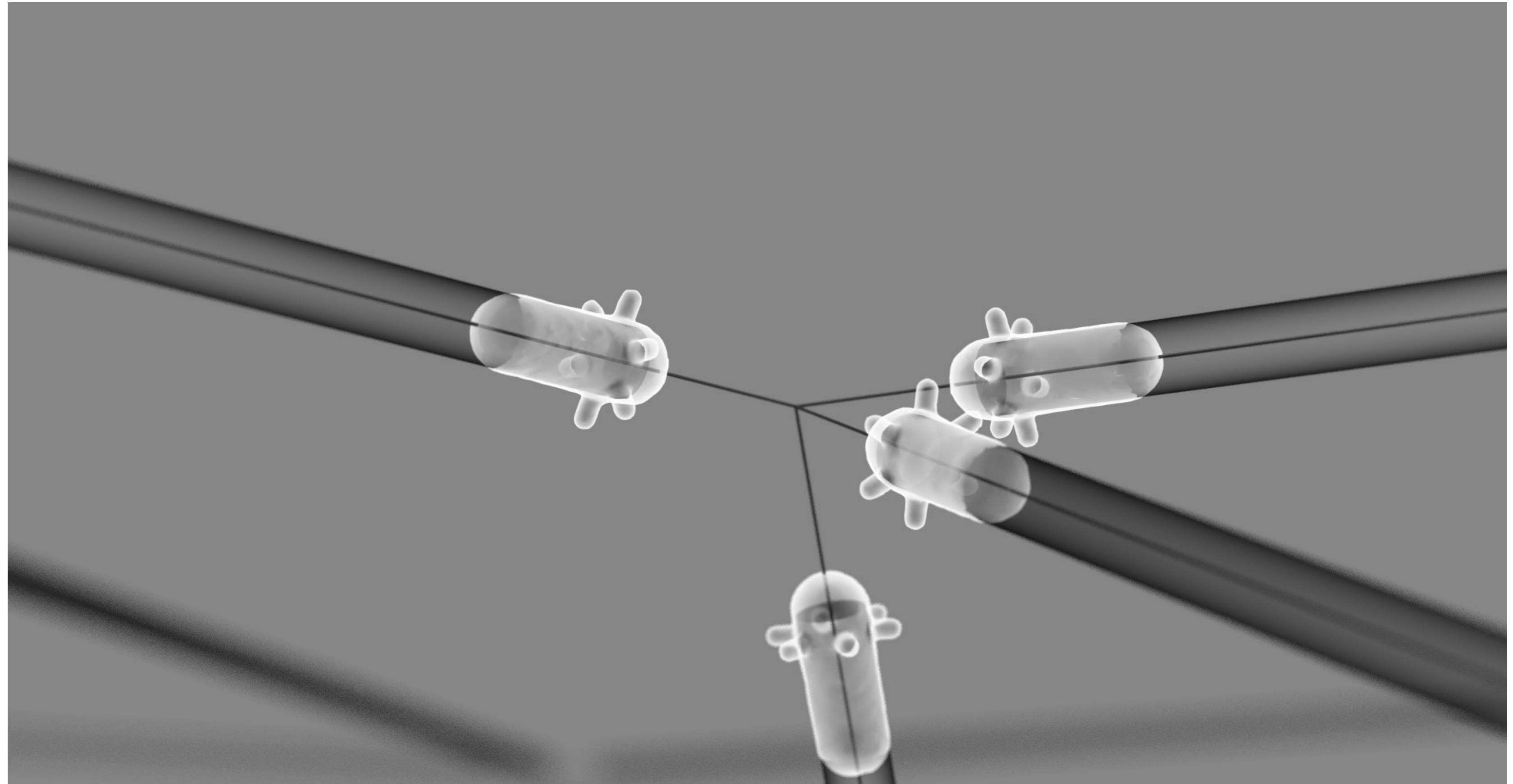


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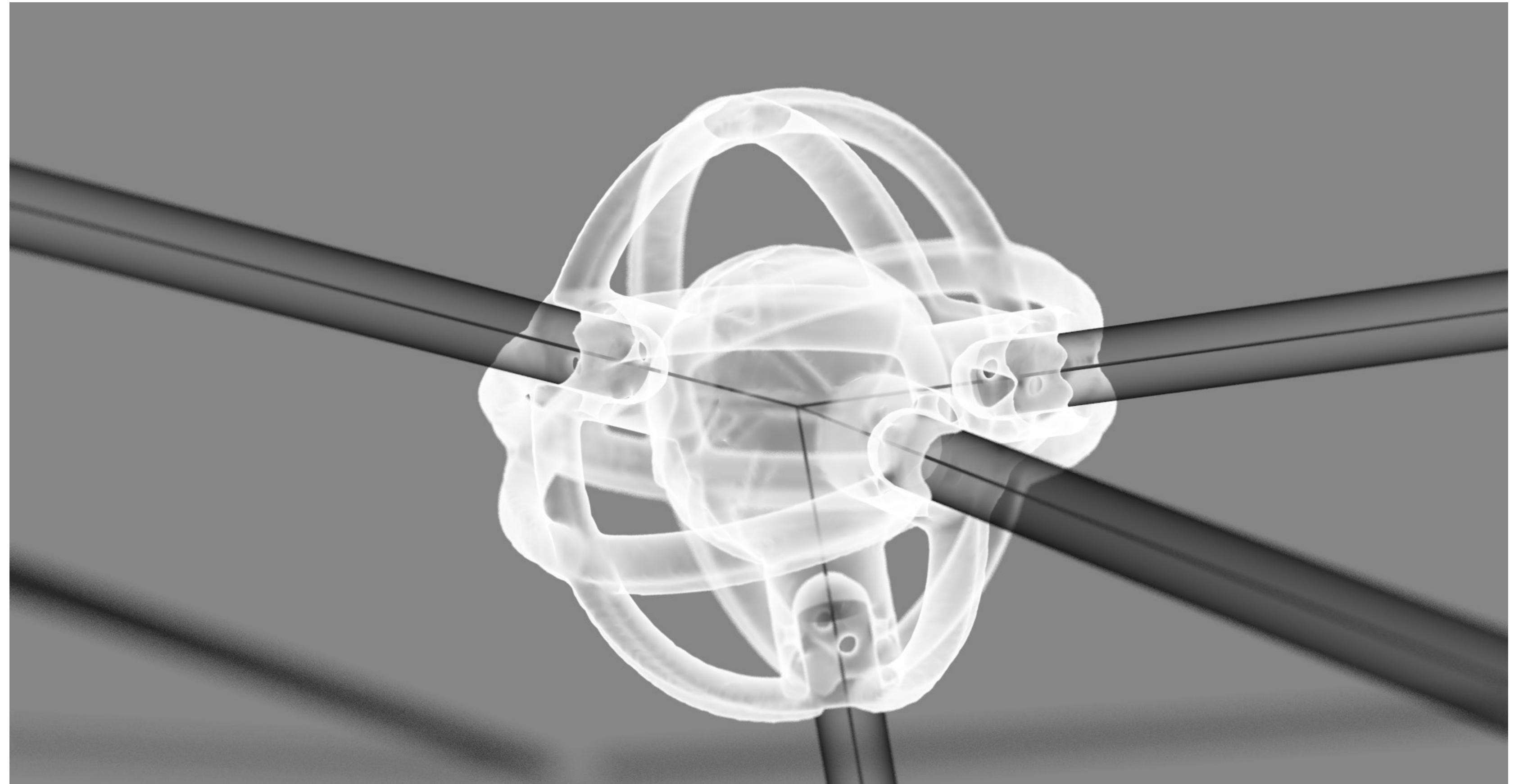




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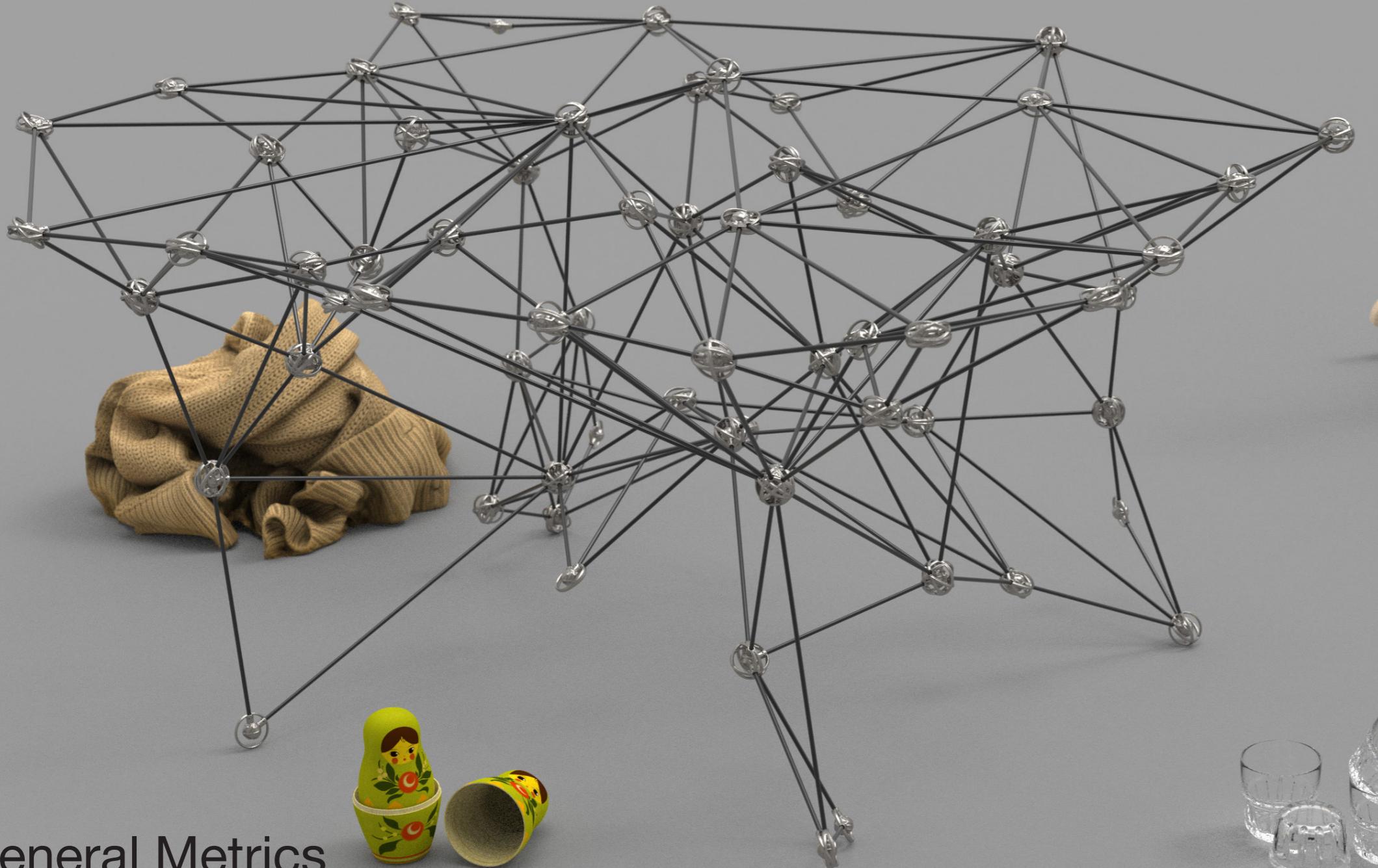
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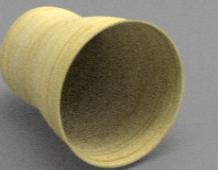
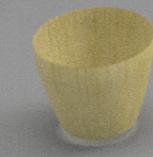
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General Metrics

178 rods
(diameter 4mm, total length 45.2m)

64 joints
(outer diameter 30mm, total volume 384 cm³)



DeepTable

repository going public on the 19th of december 2018

