

Processos criativos em ciências

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PERFORMANCE & EXPERIÊNCIAS IMERSIVAS

Dance your Ph.D. ...

The screenshot shows the Science website's announcement for the annual Dance Your Ph.D. contest. At the top, there is a promotional banner for AAAS membership, stating "Get Science's latest advances delivered weekly. Plus an exclusive member gift when you join AAAS." The navigation bar includes links for NEWS, CAREERS, COMMENTARY, JOURNALS, and a COVID-19 button. The main content area features the title "Announcing the annual Dance Your Ph.D. contest" and three paragraphs of text. The first paragraph describes the common experience of being asked about Ph.D. research. The second paragraph asks if the reader wishes for a world where they could explain their research through interpretive dance. The third paragraph states that this world exists and offers prizes for winners. A sidebar on the right contains a "DANCE YOUR PH.D." section with links for ABOUT, ENTER, OFFICIAL RULES, FAQ, and TIPS & TRICKS. Below this is an advertisement for Science and AAAS.

Science | AAAS
Get Science's latest advances delivered weekly.
Plus an exclusive member gift when you join AAAS.

NEWS CAREERS COMMENTARY JOURNALS | COVID-19 Science brought to you by Universidade de Sao ... LOG IN BECOME A MEMBER

HOME > ANNOUNCING THE ANNUAL DANCE YOUR PH.D. CONTEST

Announcing the annual Dance Your Ph.D. contest

The party is just getting started when the dreaded question comes: "So, what's your Ph.D. research about?" You launch into the explanation, trying to judge the level of interest as you go deeper. It takes about a minute before someone changes the subject.

At times like this, don't you wish you lived in a world where you could just ask people to pull out their phones to watch an online video explaining your Ph.D. research through interpretive dance?

You do live in that world! Not only can you have such a video, you can win vast sums of money (OK, modest amounts), achieve geek fame on the internet, and be recognized by *Science* for your effort. This is the 15th year of the "Dance Your Ph.D." contest run by AAAS and *Science*, and now sponsored by the artificial intelligence company Primer.

Prizes: Category winners receive \$750. The overall winner receives an extra \$2000 and a spot on *Dancing with the Stars*! OK, we can't actually do that second thing.

DANCE YOUR PH.D.

[ABOUT](#)
[ENTER >](#)
[OFFICIAL RULES >](#)
[FAQ >](#)
[TIPS & TRICKS >](#)

ADVERTISEMENT

Science | AAAS
Get Science's

Dance your Ph.D. ...

The screenshot shows the Science website's header with navigation links: NEWS, CAREERS, COMMENTARY, JOURNALS, and a COVID-19 button. The Science logo is centered, and on the right, there are links for 'brought to you by Universidade de Sao ...', a search icon, 'LOG IN', and 'BECOME A MEMBER'.

How to enter

1. Turn your Ph.D. thesis into a dance.
2. Post the video on [YouTube](#) or [TikTok](#).
3. [Send us the link](#) by 27 January 2023.

The rules

1. For the normal categories, you must have a Ph.D., or be working on one as a Ph.D. student.
2. Your Ph.D. must be in a science-related field (see [FAQ](#)).
3. You must be part of the dance (see [FAQ](#)).
4. You must adhere to all local COVID-19 guidelines, including vaccine and mask mandates and size restrictions on gatherings. Safety before salsa!
5. [The complete and official rules apply and can be found here.](#)

Submission deadline: **27 January 2023 at 11:59 p.m. EST**

On the right side of the page, there is a promotional banner for AAAS membership. It features the text 'latest advances delivered weekly.' and 'Plus an exclusive member gift when you join AAAS.' with a 'LEARN MORE →' button. Below the text is an image of Science magazine covers and a white t-shirt with the text 'SCIENCE SHAPES OUR FUTURE' and the AAAS logo.

The footer of the website contains logos for Science, Science Advances, Science Immunology, Science Robotics, Science Signaling, and Science Translational Medicine, along with a red circular arrow icon.

Dance sua IC/Pós ...

A polymeric prosthetic heart valve



<https://www.youtube.com/watch?v=3pqHVersEik>



<https://www.youtube.com/watch?v=iRUDC1PiPAo>



Dance Your PhD 2017 - Pop, Dip and Spin: The
Legendary Biosensor For Forensic Sciences
Natália Oliveira entitled "Development of
biosensors for Forensic Sciences applications"
UFPE

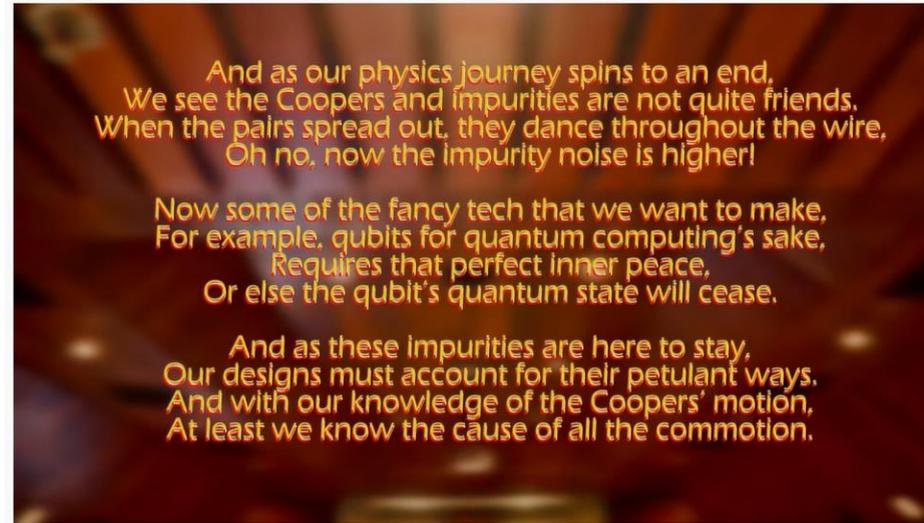


“Non-Local Electrodynamics of Superconducting Wires: Implications for Flux Noise and Inductance”,

Non-Local Electrodynamics of Superconducting Wires: Implications for Flux Noise and Inductance

by

Pramodh Viduranga Senarath Yapa Arachchige



Dance Your PhD 2018 WINNER - Superconductivity: The Musical!



3.3.4 Non-local Vector Potential and Current Density using the 2D Pippard Kernel

The following are the results using the 2D Pippard kernel:



$$J(\rho) = -\frac{1}{2\pi\mu_0\xi\lambda^2} \int A(\rho') \frac{\exp\left(-\frac{|\mathbf{r}-\mathbf{r}'|}{\xi}\right)}{|\mathbf{r}-\mathbf{r}'|} d^2\mathbf{r}' \quad (3.48)$$

$$= \int_0^R \left[\int_0^{2\pi} K_{2DPipp}(\theta, \theta', \rho, \rho') d\theta' \right] A(\rho') \rho' d\rho' \quad (3.49)$$

$$= \int_0^R K_{2DP}(\rho, \rho') A(\rho') \rho' d\rho'. \quad (3.50)$$



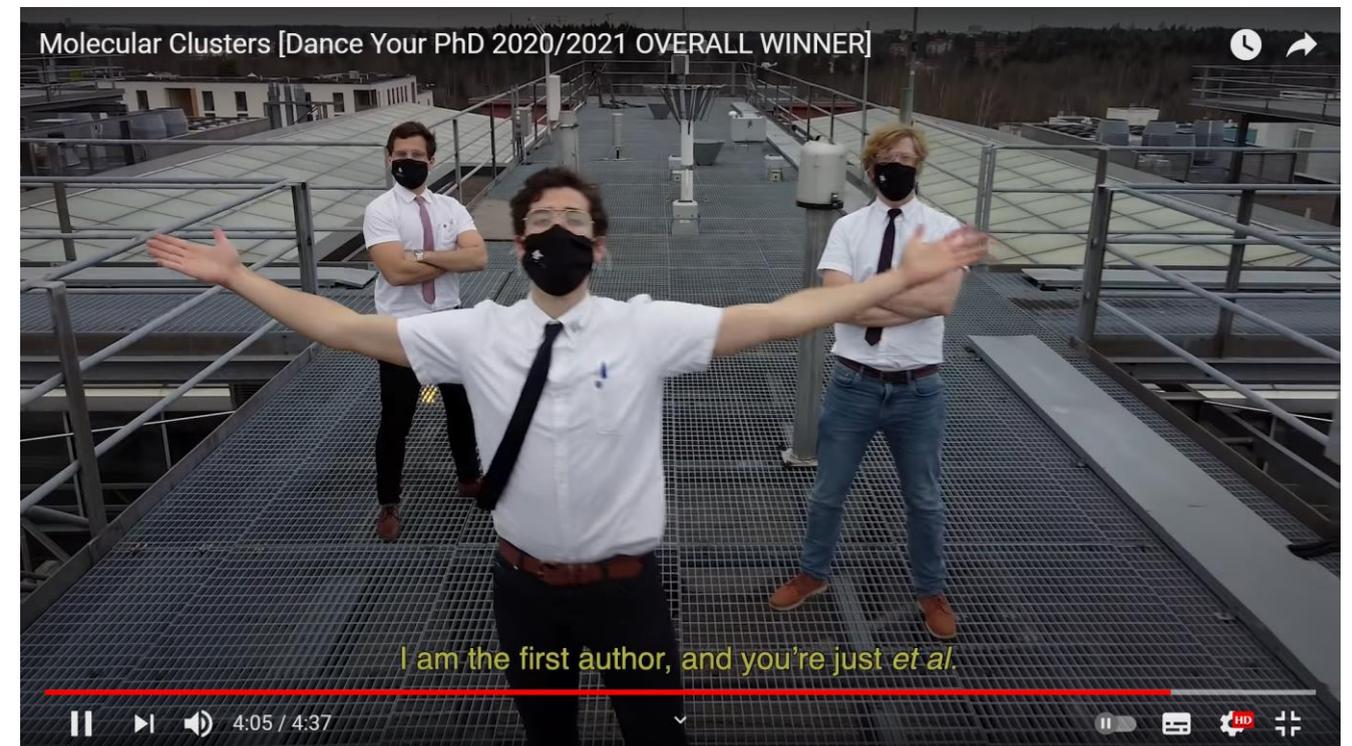
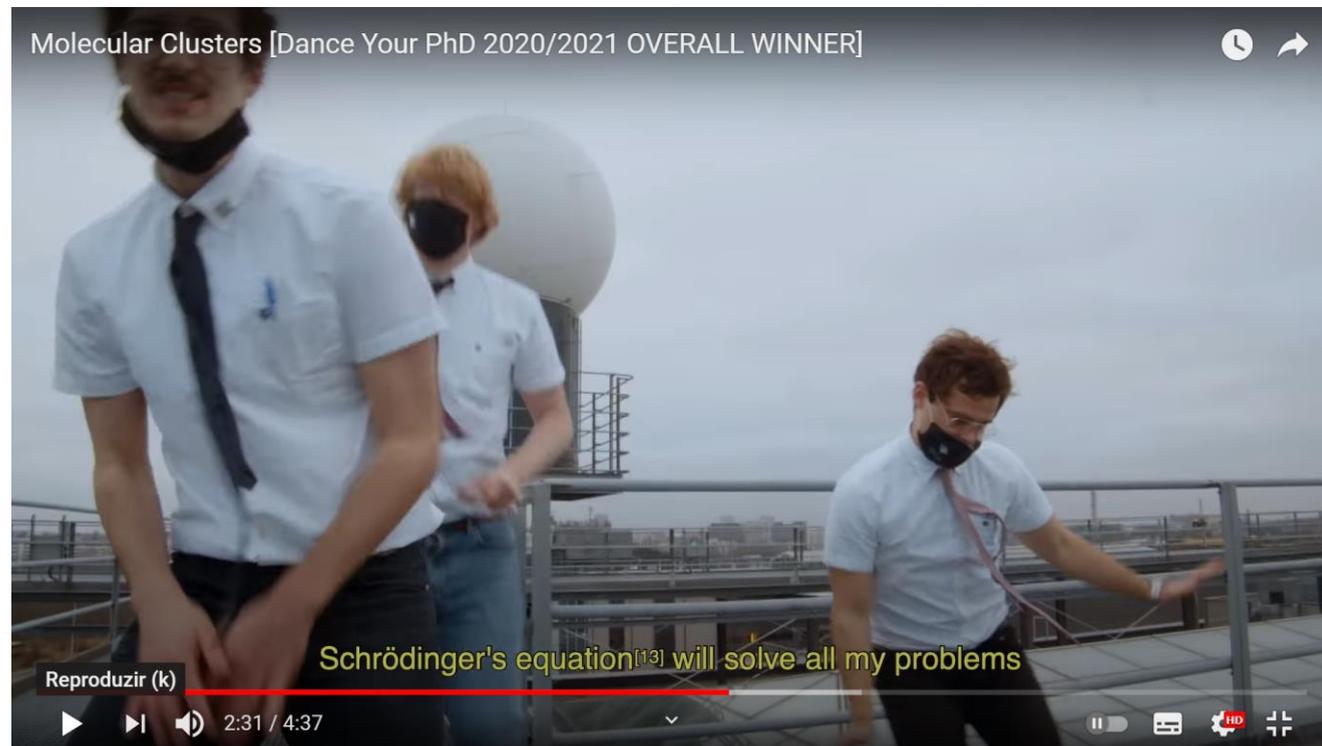
A person's hands are holding a red basketball in front of a stone wall. The basketball has black and yellow text and logos. The text reads "DANCE YOUR DUNK" and "PHD 2016". There are two logos on the ball, one at the top and one at the bottom, which appear to be the University of North Carolina Tar Heels logo.

DANCE YOUR
DUNK
PHD 2016

Molecular clusters – Ganhador em 2020/2021

Molecular Clusters [Dance Your PhD 2020/2021 OVERALL WINNER]

<https://www.youtube.com/watch?v=Kdrh82RVI3M>



This video was made in compliance with all local COVID-19 guidelines



Dicas da Science*

1. Comece com uma boa idéia !

Encontre a essência do seu trabalho.

Tente explicá-lo em 30s (use exemplos, analogias, ...)

2. Escolha uma trilha Sonora e Dance !

Sem medo de ficar constrangido(a)

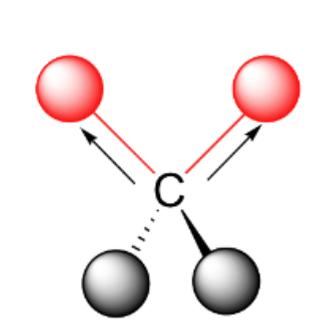
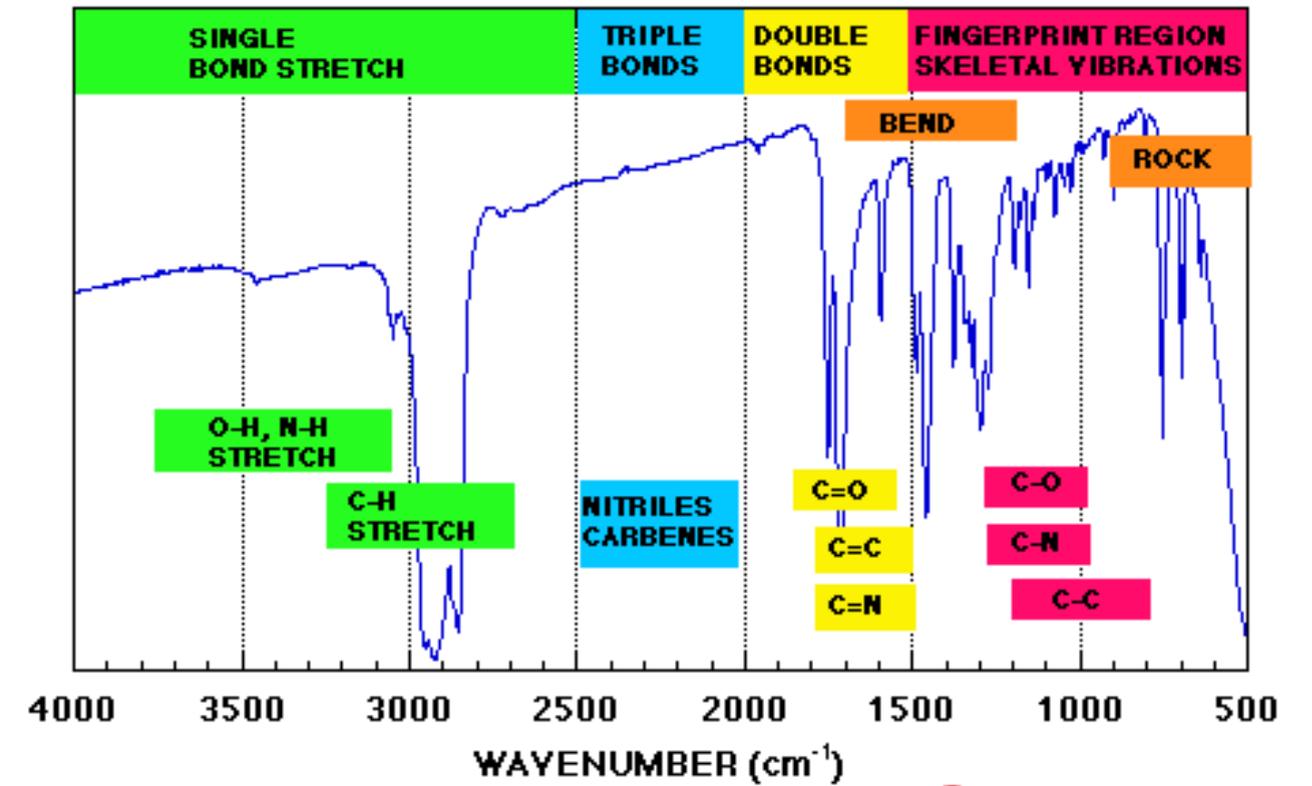
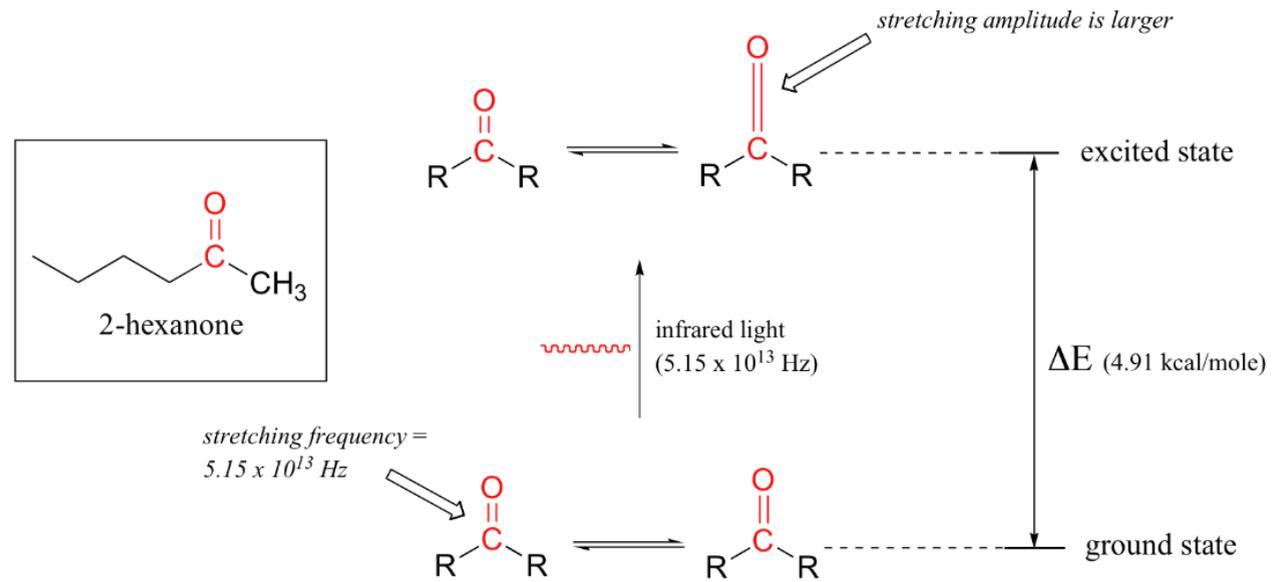
3. Divirta-se

Dicas da Science* para vídeo

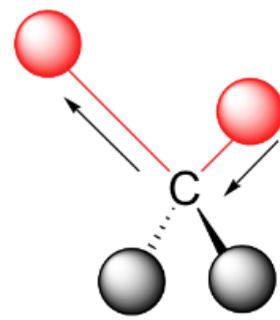
1. Sem necessidade de equipamentos caros (mínimo: 640 x 480 pixels, mas melhor se 1280 x 720 pixels)
- 2) Luzes: se assegure de iluminar e realçar os dançarinos nos vídeos. (Luz natural externa: ok / Salas com lâmpada fluorescente: evite)
- 3) Não se preocupe com o som durante a filmagem – Edição / Incluir os créditos da(s) música(s)
- 4) Cenário é importante

* <https://www.science.org/content/page/tips-tricks>

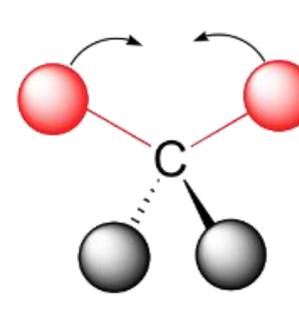
Fenômeno físico



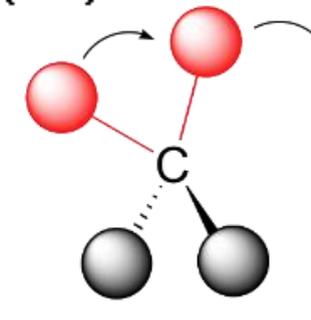
symmetric stretching



asymmetric stretching

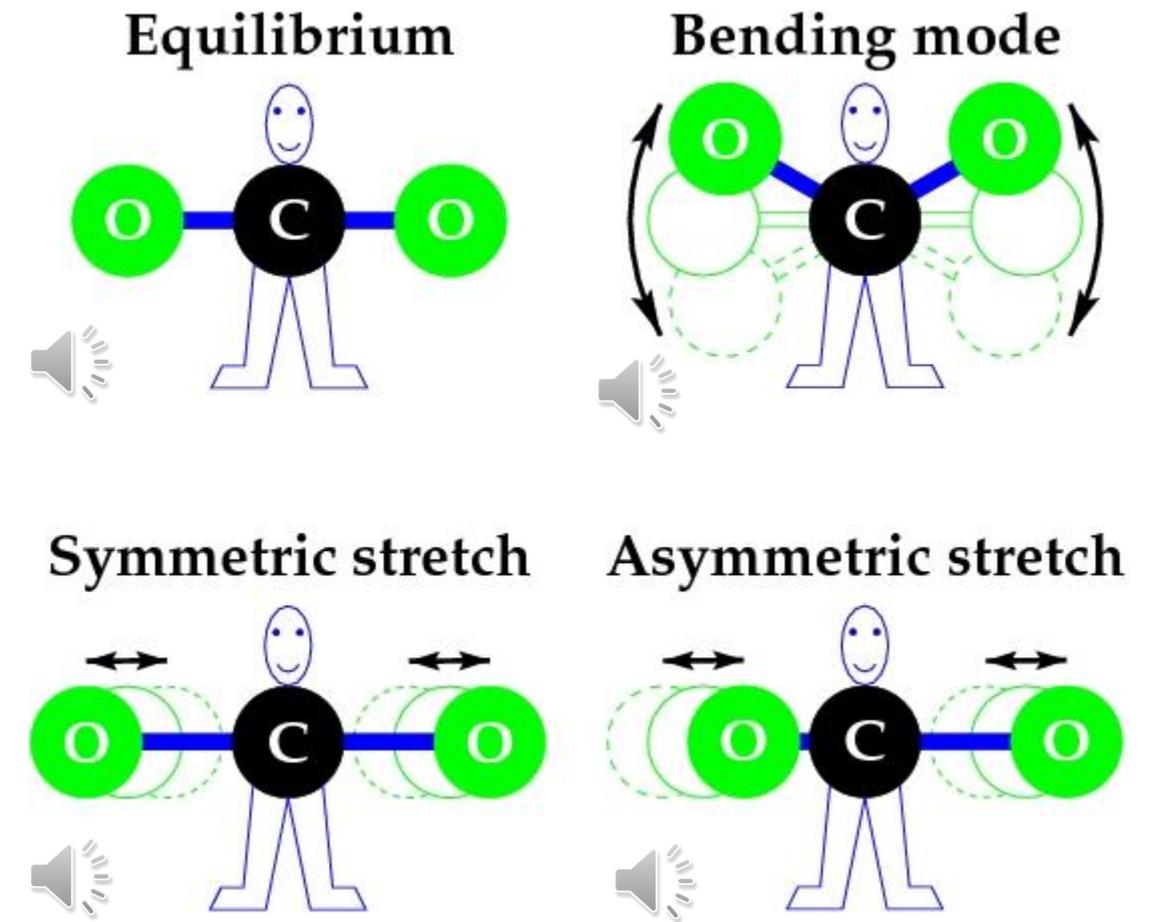
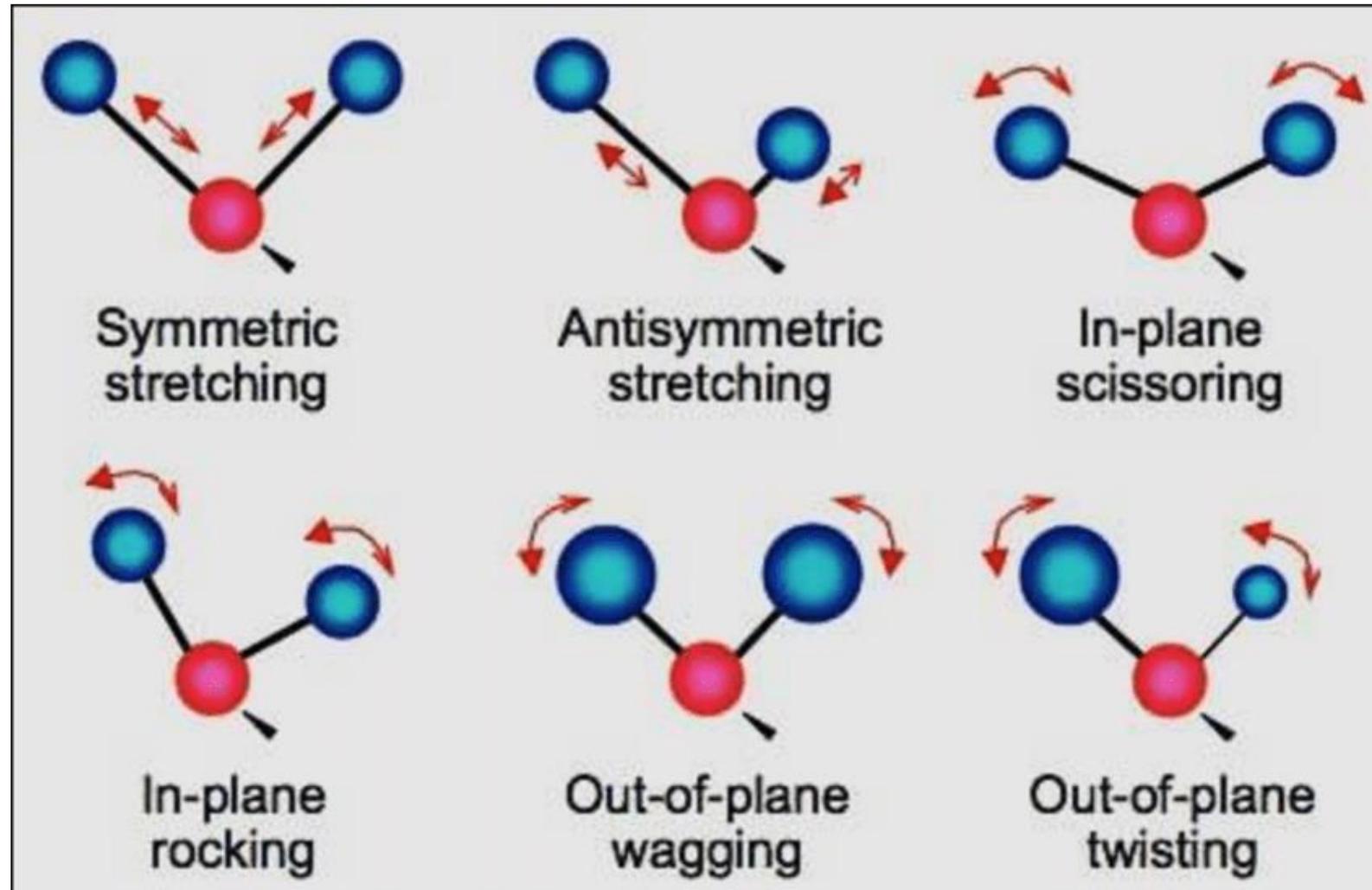


scissoring



rocking

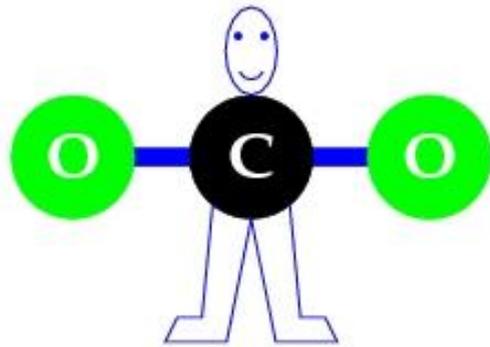
Modos vibracionais de uma molécula



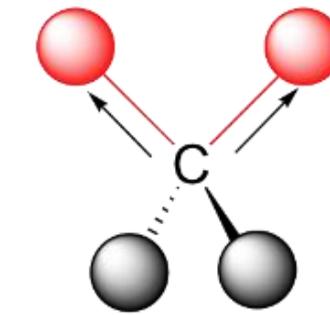
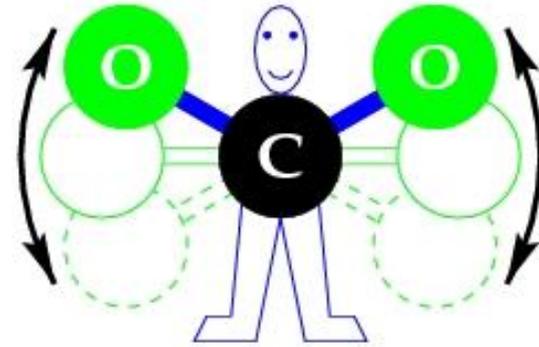
Criação coletiva em aula – Performance 2022



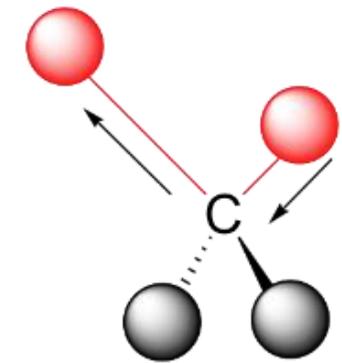
Equilibrium



Bending mode

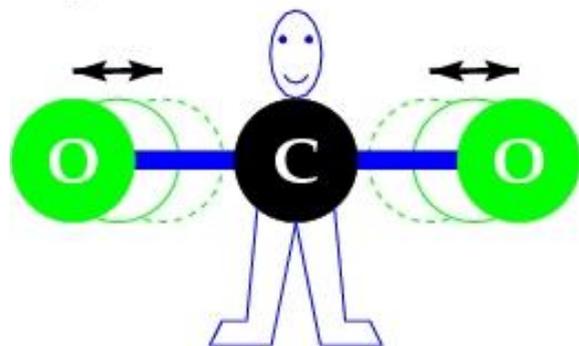


symmetric stretching

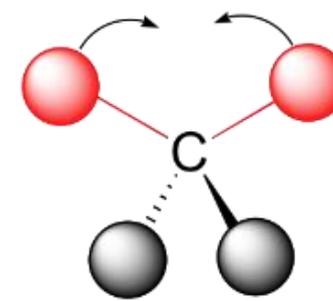
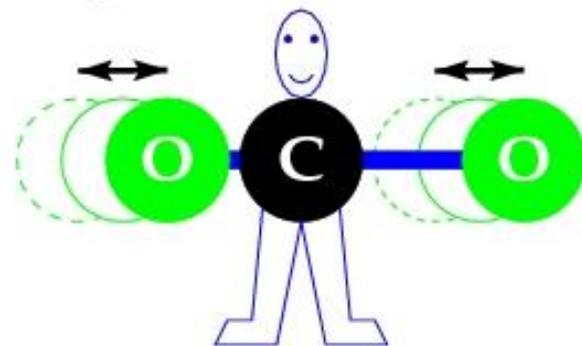


asymmetric stretching

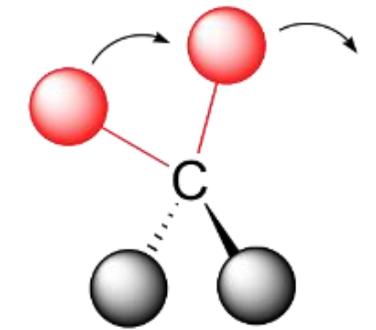
Symmetric stretch



Asymmetric stretch



scissoring

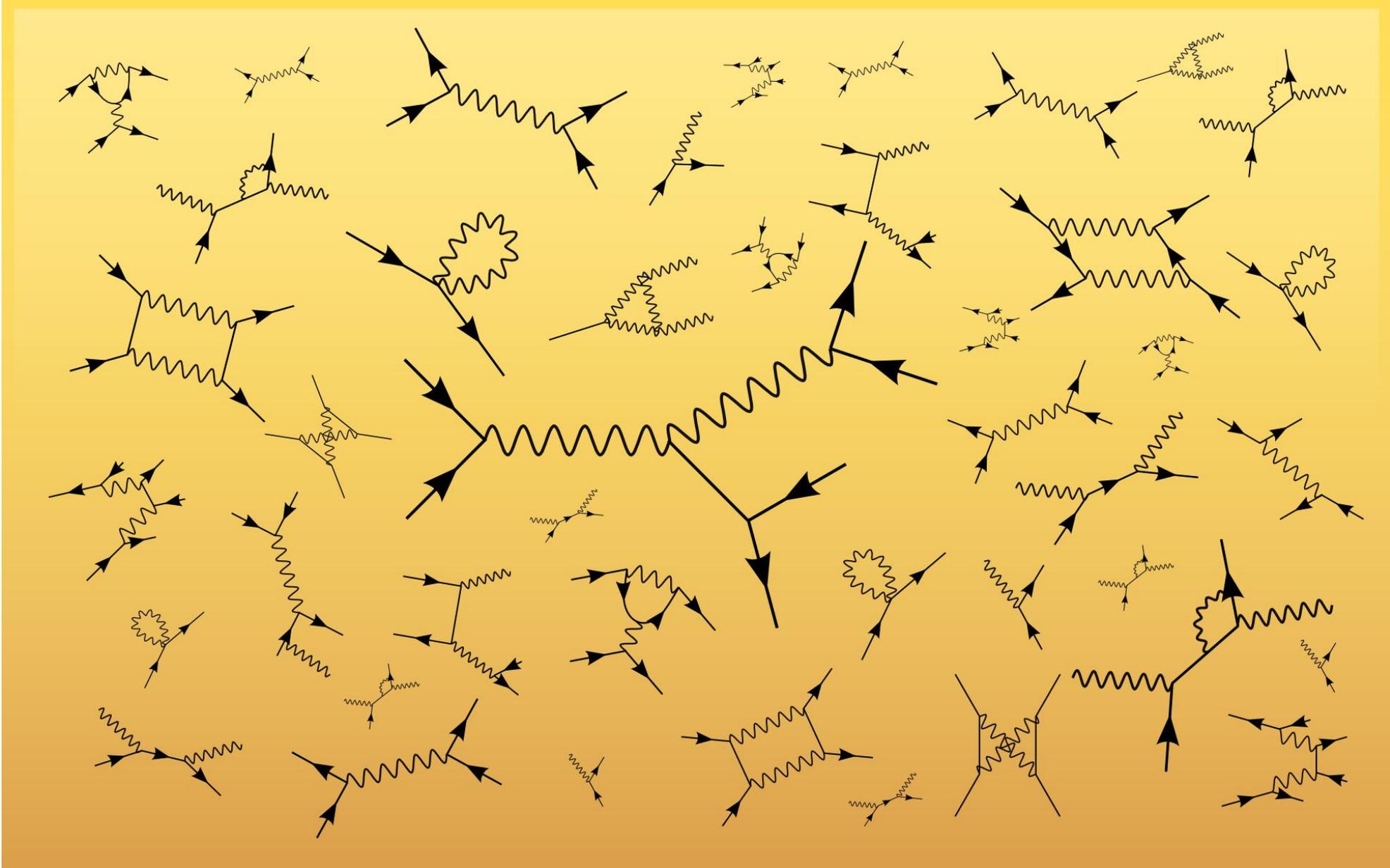


rocking

NOMES DE A – H – Molécula de CO2

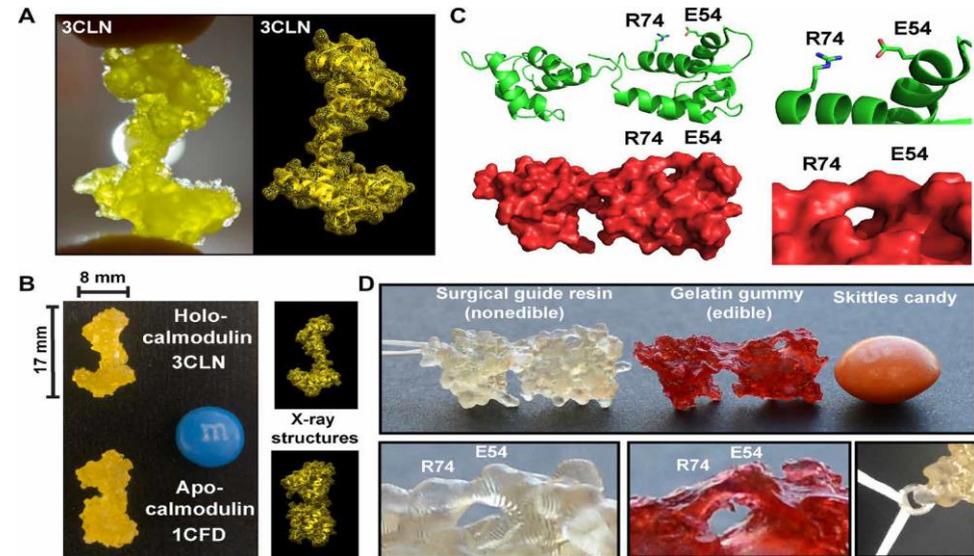
NOMES DE I – Z – Molécula de CH4

Dance sua IC/Pós ...

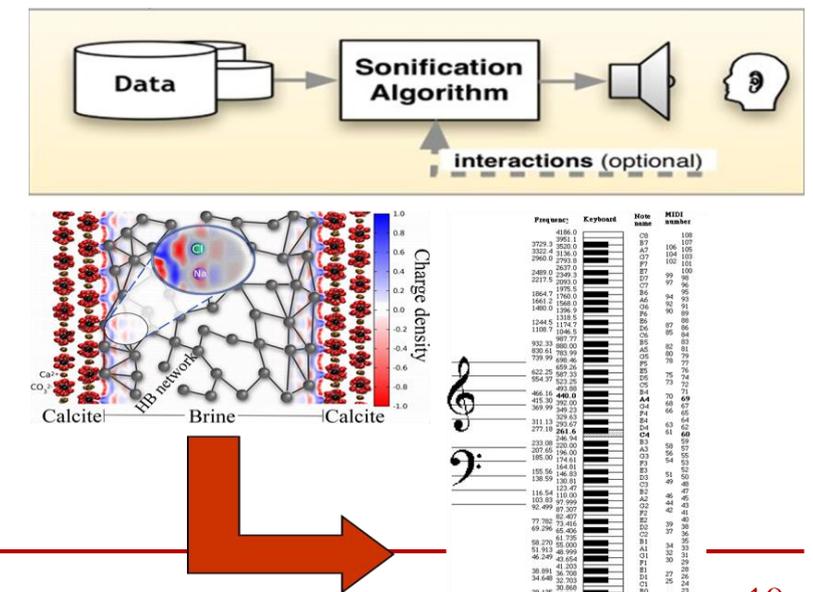
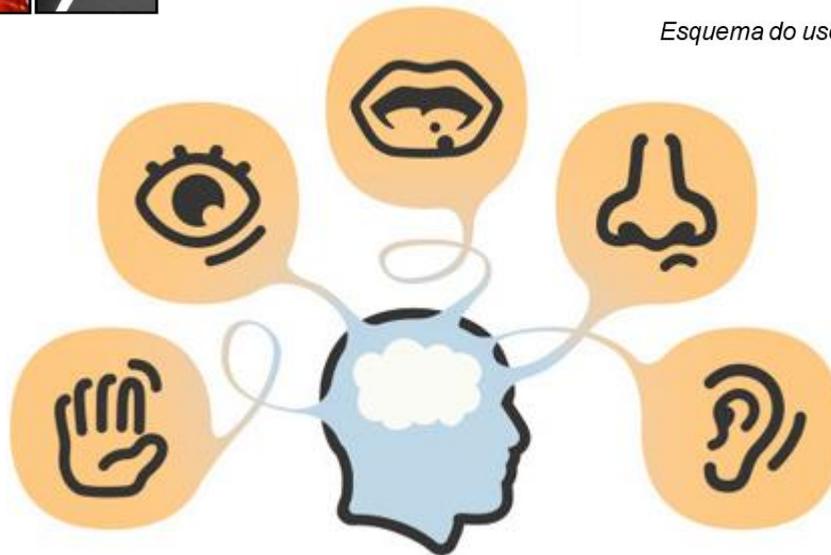
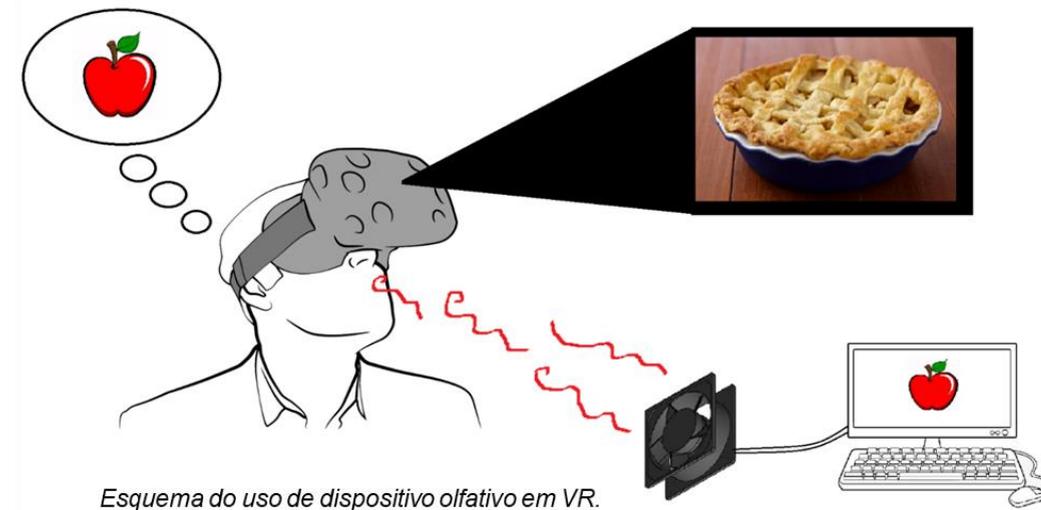


REALIDADES EXTENDIDAS

Experiências imersivas



Cheiros e realidade virtual



- **Novas formas de ver e interagir com simulações e fenômenos físicos.**
- **Percepção do mundo em distintas escalas (RV e Molecular)**

Realidades extendidas



Realidade Virtual



Realidade Aumentada

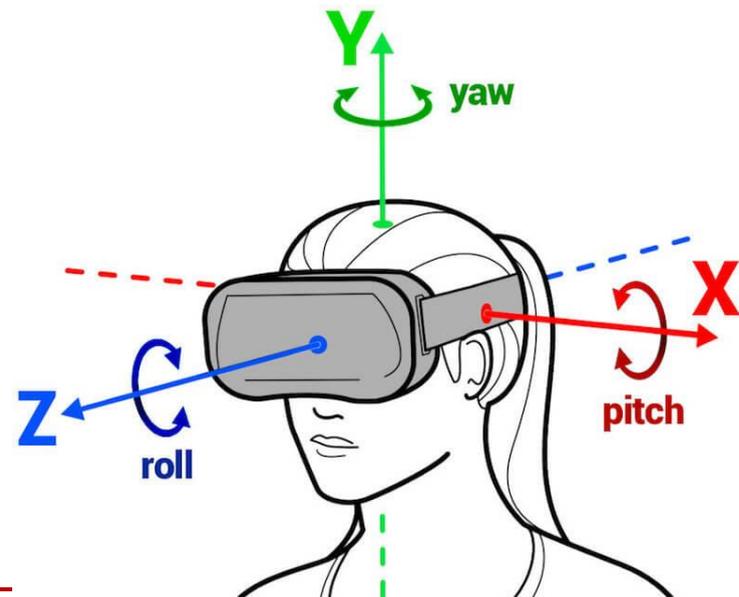
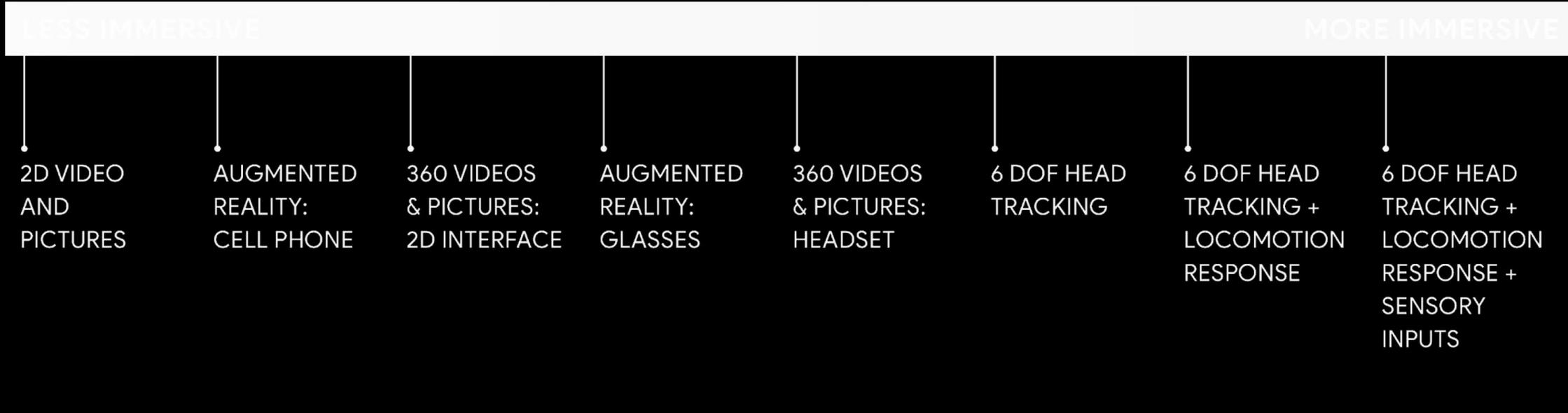


Realidade Mista

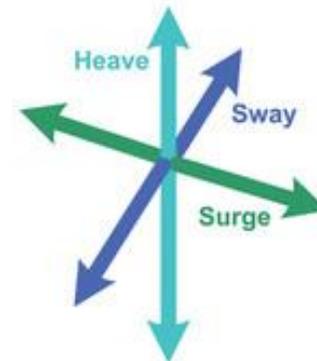


Realidade Extendida

The Virtual Reality Spectrum

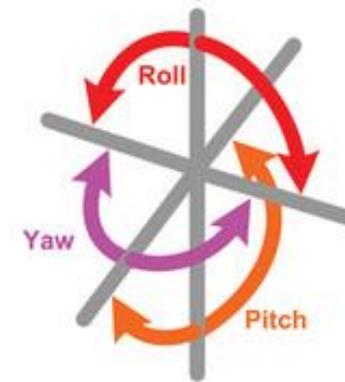


Translational Movement in Three Perpendicular Axes



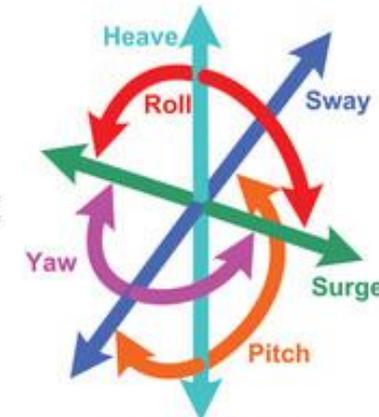
Surge: Moving forward/backward
Heave: Moving up/down
Sway: Moving left/right

Rotational Movement about Three Perpendicular Axes



Roll: Tilting side to side
Pitch: Tilting forward and backward
Yaw: Turning left and right

Six Degrees of Freedom



Surge Roll
Heave Pitch
Sway Yaw

Níveis de imersão

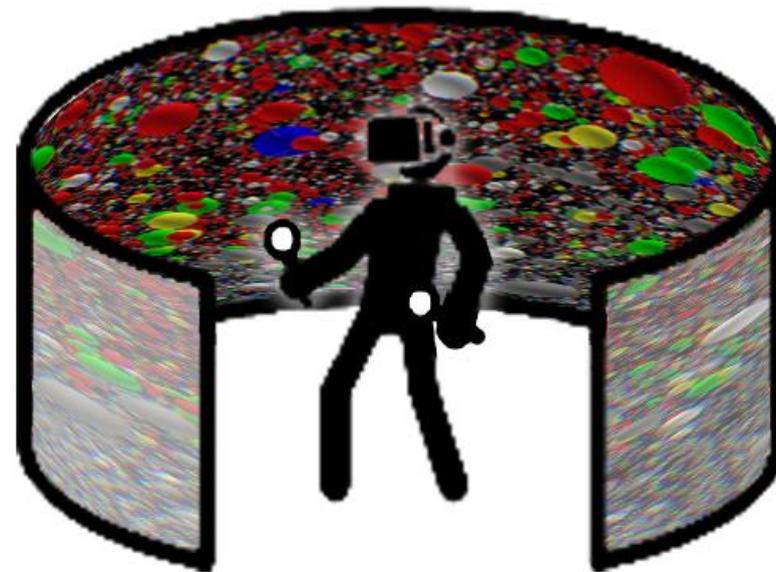
Visualização

SEE



Experiência com RV

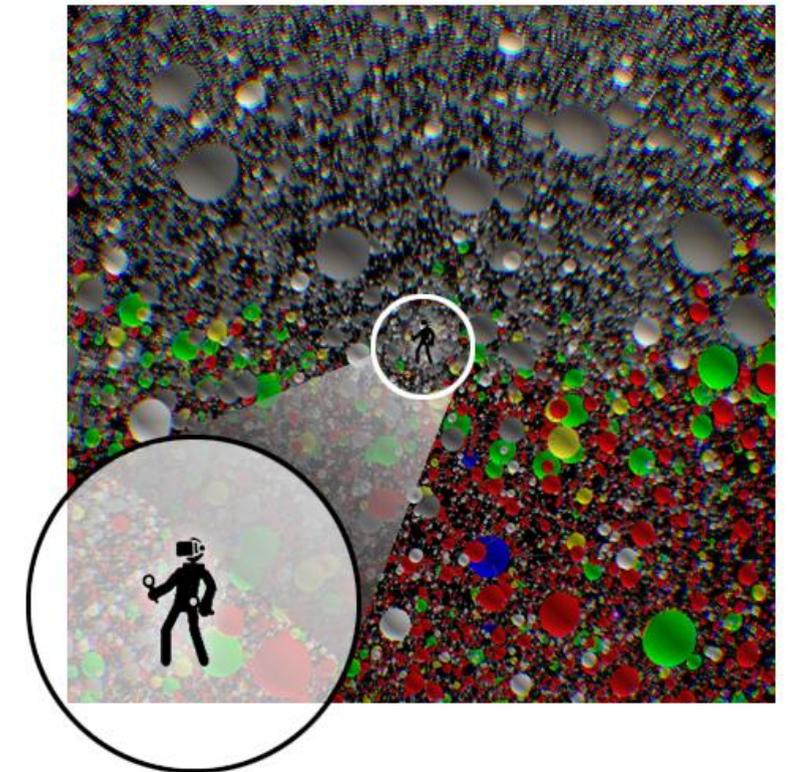
BE IN



Sistema de interesse

Experiência interativa com RV

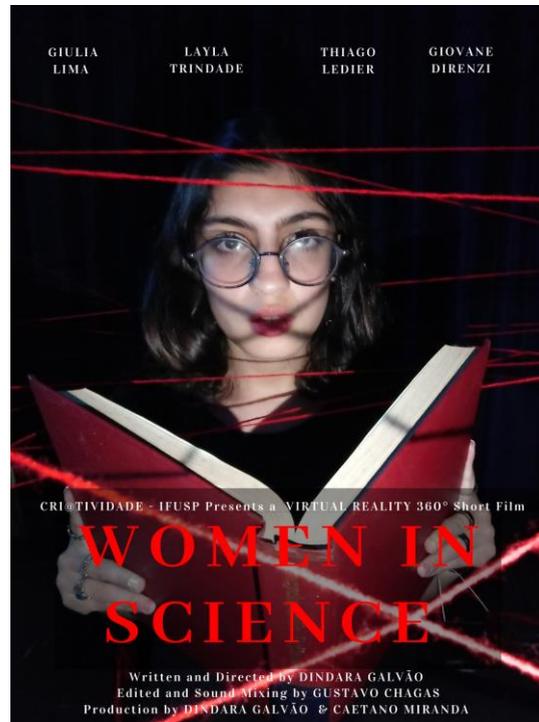
BE THE



Diversidade através de narrativas imersivas usando vídeos 360° Videos e Teatro de sombras



“Women in Science” por Dindara S. Galvão.



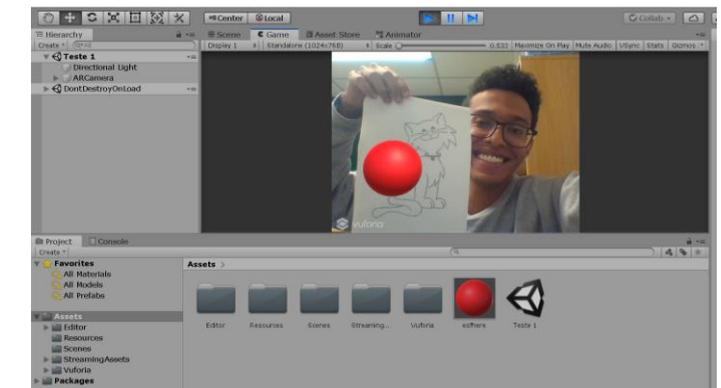
Teatro de sombras



Aventuras de Sofia: do átomo à nanotecnologia



Camera Gear 360.



Grupos sub-representados no IFUSP

Experimentações

Recepção – VR @ Nano (10 pessoas)

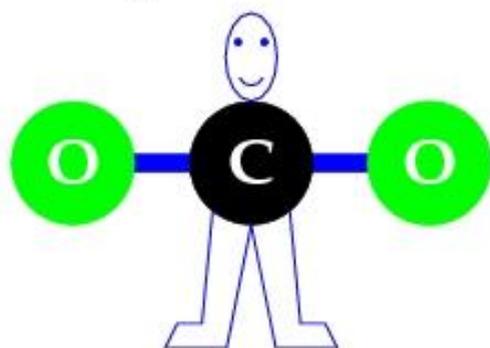
Sala 6 – Filme 360o - Women in Science (6 pessoas)

Sala 2 – Experimentações – Música (20)

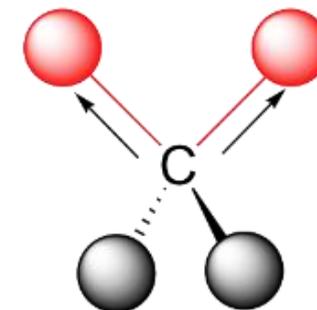
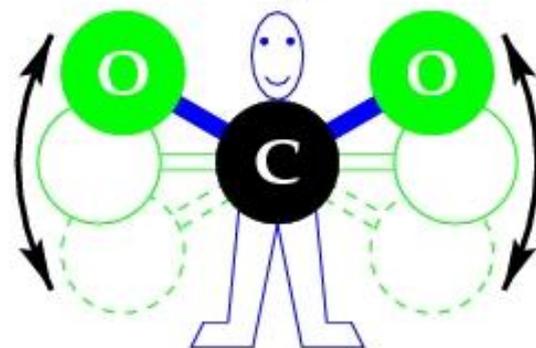
Criação coletiva em aula – Performance 2021



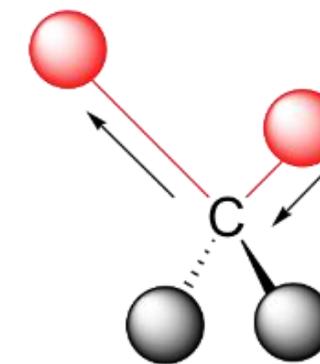
Equilibrium



Bending mode

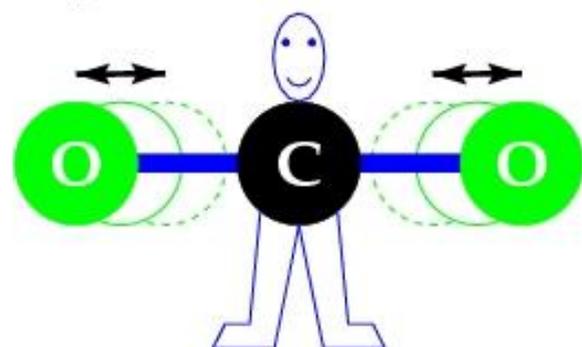


symmetric stretching

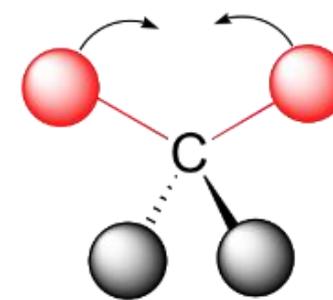
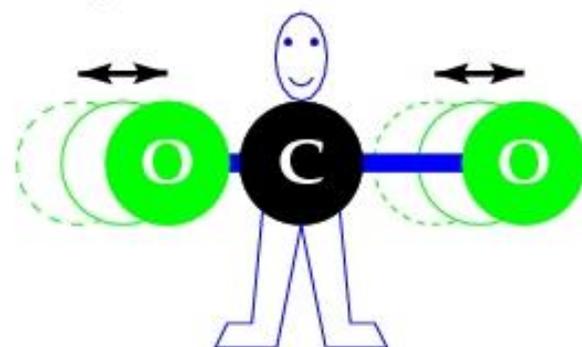


asymmetric stretching

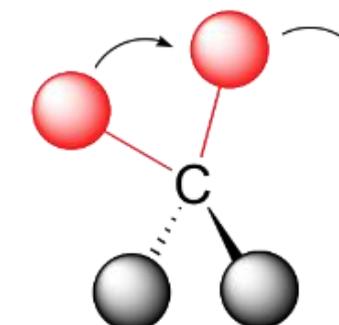
Symmetric stretch



Asymmetric stretch



scissoring



rocking

NOMES DE A – H – Molécula de CO2

NOMES DE I – Z – Molécula de CH4

Storyboarding (finalização + performance)

- Idealize/Estruture como você criaria a cena que criou o storyboard
- Como você filmaria/animaria? Quais mídias? Equipamentos que você tem pra usar?
- Como você lidaria com os problemas técnicos e criativos dessa cena? Se for física, onde você filmaria ela?
- E visualmente? Quais cores você pensaria? Qual estética?

Sala 1 - Distopia / Cyberpunk

Sala 2 - Viagem no tempo

Sala 3 - Viagem espacial

Sala 4 - Pandemia

Sala 5 - Tecnologias (BlackMirror)

Sala 6 – Jogos / Fantasia / Contos de fada

Sala 7 - Terror / Suspense

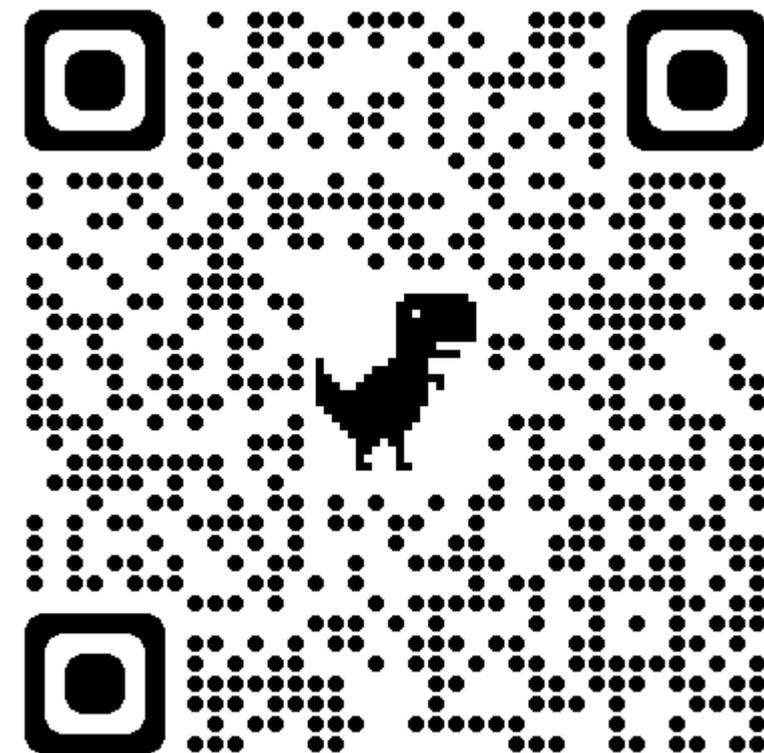
Sala 8 – Poesia Quântica

Sala 9 - Físicos(as) também amam

Sala 10 - Livre

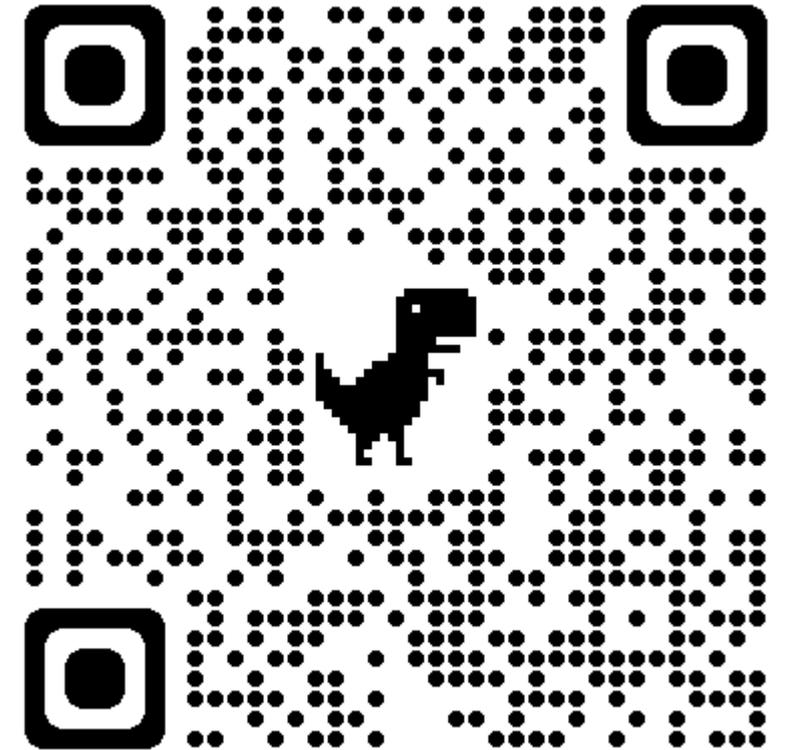
Formulário – Presença – Aula 23

<https://forms.gle/euqH6SAhdB5dtoeK9>

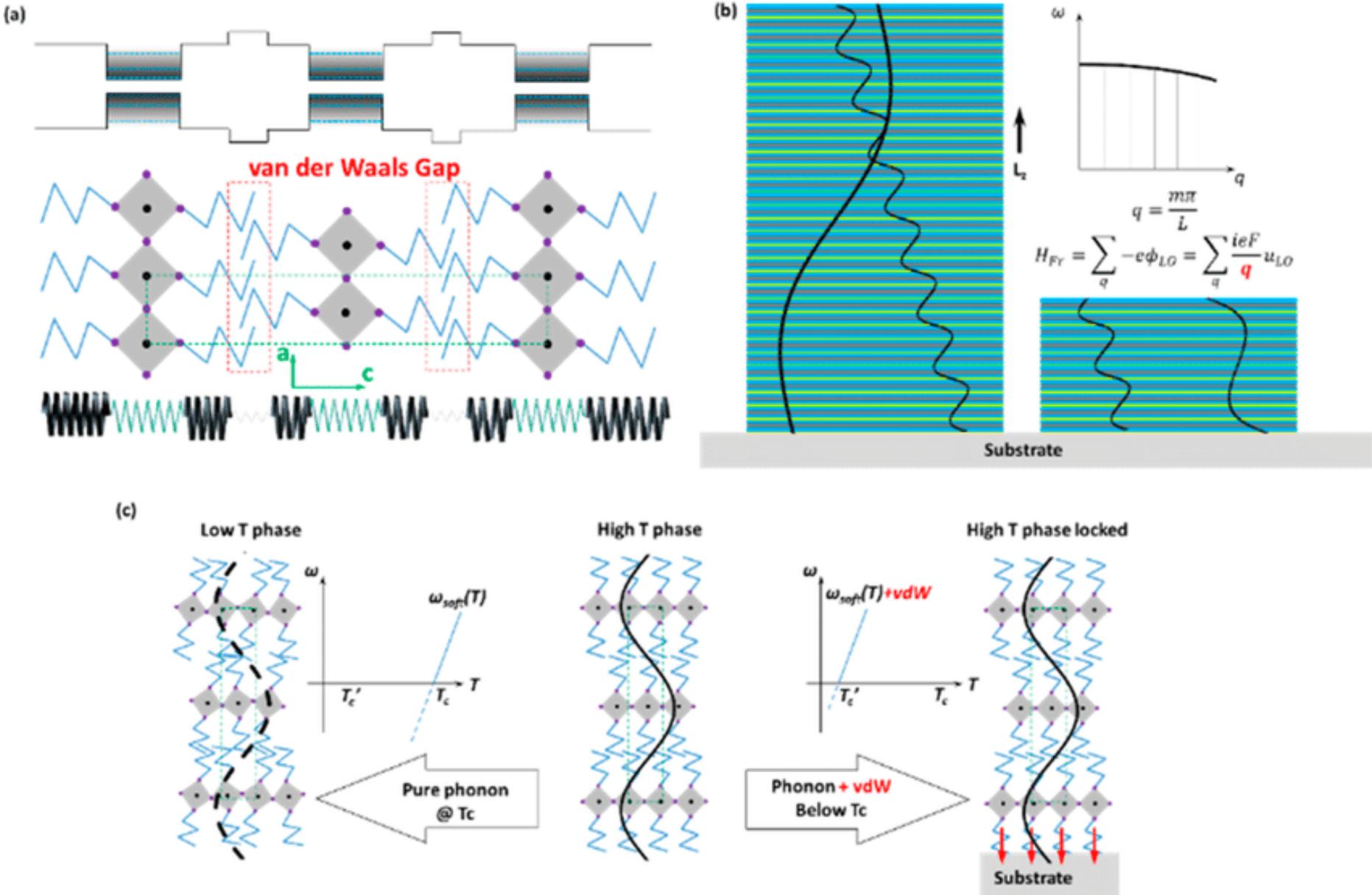


Formulário – Presença – Aula 24

<https://forms.gle/KpX48PY18UhLypHd6>



Acoplamiento electrón-fonón



Condensado Bose-Einstein

