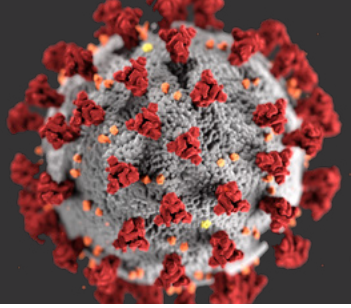
APS physics

COVID Research and Resources Group

Webinar Series



What we know and don't know about the role of droplets and aerosol in transmission of SARS-CoV-2

Wednesday, October 21, 12:00 pm ET

Register at go.aps.org/covidwebinar3

For more information visit go.aps.org/crrgwebinars

Topics covered during this webinar:

- Transmission of respiratory diseases by various types of respiratory droplets, including breathing, speaking, coughing, and sneezing.
- The implication of speech and/or breathing droplets in SARS-CoV-2 transmission by disease carriers without symptoms.
- Results and challenges of visualization of breathing and speech droplets by laser light scattering.
- Rapid evaporation and transformation of droplets into aerosol and its implications in limiting spread and blocking transmission.
- The risks to bystanders as well as the infected person from speech droplets from a presymptomatic SARS-CoV-2 carrier.

Speaker: Adriaan Bax, NIH

Moderator: Jose L. Jimenez, University of Colorado Boulder

Dr. Adriaan (Ad) Bax is a Dutch-American molecular biophysicist. He was born in the Netherlands and is the Chief of the Section on Biophysical NMR Spectroscopy at the National Institutes of Health. Dr. Bax is a pioneer in the development of triple resonance experiments and technology for resonance assignment and structure determination of isotopically enriched proteins. Much of his recent work focuses on folding and misfolding of proteins, related to amyloid diseases. He was the world's most cited chemist over two decades (1980-2000). In 2002 he was elected a member of the National Academy of Sciences in the section on Biophysics and Computational Biology and in 2018 he was awarded the Welch Award in Chemistry. Recently, Dr. Bax introduced laser light scattering video images to demonstrate the abundance of speech-generated droplets and aerosols, which may be a dominant SARS-CoV-2 transmission mode that could be mitigated by wearing face coverings or face masks.

About the CRRG

The COVID Research and Resources Group (CRRG) aims to connect physicists and other scientists through COVID-related research and education efforts. If you would like to join CRRG, visit our website, find our community on engage.aps.org, or email crrg@aps.org and we will connect with you.