Risk Assessment for: Cambridge Physics Centre online lectures 2020-21

University of Cambridge, general risk assessment form

For the 2020-21 season, Cambridge Physics Centre (CPC) lectures cannot be live events hosted by the Cavendish Laboratory, University of Cambridge. Instead, the speaker and a team of CPC and Isaac Physics collaborators will meet using a Zoom meeting. This meeting will be streamed to interested viewers via the Isaac Physics YouTube channel.

Viewers will have an opportunity to take part in an online Isaac Physics quiz, then attend the lecture. They will be able to submit questions and comments to the Zoom meeting participants using text based chat but their inputs will not appear live on screen. Live interaction will be limited to people in the same school, there will be no interaction between schools.

The covid pandemic has provided CPC with an exciting opportunity to reach a nationwide audience.

The content and access to these lectures are tightly controlled. The possibilities of malicious content injections or Zoom-bombing have been designed out.

This risk assessment is based on the University's online safeguarding policy, which can be found at https://www.vle.cam.ac.uk/pluginfile.php/17204611/mod_resource/content/1/Online%20Safeguarding%20Policy%20-%20V2%20May%202020.pdf and extra information from the NSPCC and O_2 guidance site NetAware https://www.net-aware.org.uk/networks/zoom/

Access to the Zoom meeting and to providing content through Isaac Physics will be tightly controlled by the CPC and Isaac Physics teams, who have been DBS checked and cleared to work with young people.

The webinars will be lived streamed using the Isaac Physics YouTube account. This has the following features:

- Access to the platform is enabled only for the intended participants
  All attending schools and other attendees will register in advance via Isaac Physics. Pre-registered attendees will be sent a link that allows 1 user only to log in to the webinar.
- Personal information (including names, contact details and email addresses) is only accessible to those with the right permissions and is not publicly viewable
- Staff are able to remove people from the platform if necessary

Non-interactive live streaming

The Cambridge Physics Centre lectures are classified as non-interactive livestreaming on the University's online safeguarding policy. This policy requires the following features for an appropriate non-interactive livestreaming system:

- Attendee video/audio will not be enabled, their only input to the webinar will be through typed messages which will be vetted by a moderator before being passed to the panel.
- Be appropriate for the participants' age group
  The Zoom platform specifies a minimum user age of 16. This event is aimed at students in school years 12 and 13 or equivalent, the school years in which they turn 17 and 18.
- Enable you to restrict the audience to just the intended participants
  All attendees will register in advance via the Department's Open Day web pages. Pre-registered attendees will be sent a one time link that allows 1 computer only to log in to the webinar
- Ensure that participants personal information (e.g. contact information) is not visible to anybody else presenting or viewing the stream
  All content will be moderated off screen before it goes live to enable all personal details and inappropriate language to be removed.
- Enable you to reject or force somebody to leave the session if necessary.
- Enable you to control whether participants are able to have their videos/microphones on
  Webinar attendees will not have a path available for the insertion of video or audio content into the webinar. Only indirect typed questions will be passed to the panel via the moderator.
- You must make sure that you comply with any safeguarding policies belonging to the platform

Screen sharing

The lecturer and anyone else sharing their screen during this live cast must be aware that they will share everything on their screen when apps such as powerpoint start or when swapping between apps. They must ensure that nothing personal, compromising or identifying is open on their screens. It is strongly recommended that all apps except those required for the presentation are closed for the duration. This helpfully prevents email and WhatsApp alerts interrupting the flow of the speaker.

Net-aware rating for YouTube

The O_2/NSPCC site https://www.net-aware.org.uk/ states that YouTube has an official age rating of 13+, well below the age of our target audience. YouTube is considered high risk in every category on which the NetAware site reports but the content streamed by Isaac Physics is tightly controlled and age appropriate. This part of YouTube is safe for use in schools.

Assessment of technical risks associated with this activity

List the significant hazard(s).[1]	Describe what could go wrong – that is, say who might be hurt and how.[2]	Is the risk high, medium or low?[3]	Please list the existing and/or intended control measures which will reduce the likelihood of all this happening.[4]	Suggest here any further actions which may be beneficial. Say who will carry them out and by when.
Participants being unable to access online content – no access to own device, poor internet connection, technical issues etc.	**Participants are unable to take part in the live event due not being able to access the internet.**	**Medium**	• Platform is available on any device, mobile or desktop, • All sessions are recorded and available with the link on YouTube.	
Streaming software – technical issues	Event organiser: their internet stops working, YouTube fails, streaming software crashes	Medium	• For internet failure, record live stream and upload to YouTube once connected. • Tweet about internet failure and recording will be made available. Ask other colleague to help if needed. • Keep viewers updated if streaming software crashes and restart as soon as possible. If this happens, remove section of recording where nothing happens.	• To mitigate against local internet failure, have at least one other host for each meeting, observing in case they need to jump in and stream in the other persons place. • Have a backup streaming service in case YouTube fails.

List the significant hazard(s).[1]	Describe what could go wrong – that is, say who might be hurt and how.[2]	Is the risk high, medium or low?[3]	Please list the existing and/or intended control measures which will reduce the likelihood of all this happening.[4]	Suggest here any further actions which may be beneficial. Say who will carry them out and by when.
Access to assignments	Participants cannot access isaacphysics.org and so cannot access their assignments	Low	Isaac Physics is fairly stable. If a students get locked out of their account because they cannot remember their password, they can request a reset. The assignments remain available and so will still be able to access them even if they do not have access to internet for a time. The site can be used on different devices.	
Communication between users	Participant -participant is not possible between centres. Participant to presenter may lead to safeguarding issues	Low	Students from different centres cannot interact with each other. Students at the same school should be encouraged to collaborate, this is a good learning strategy. Users can interact with the presenter through a messaging system, that only the Zoom meeting participants can view. The presenter cannot directly respond to the users directly. Presenter or moderators respond through the live chat.	

List the significant hazard(s).[1]	Describe what could go wrong – that is, say who might be hurt and how.[2]	Is the risk high, medium or low?[3]	Please list the existing and/or intended control measures which will reduce the likelihood of all this happening.[4]	Suggest here any further actions which may be beneficial. Say who will carry them out and by when.
Access to live tutorial	Participants cannot access live tutorial because they cannot access Isaac Physics	Low	Isaac Physics is fairly stable. If a students get locked out of their account because they cannot remember their password, they can request a reset. The assignments remain available and so will still be able to access them even if they do not have access to internet for a time. The site can be used on different devices.	

Important! It is essential to check regularly that control measures specified in this risk assessment document are actually being used in practice. Any specialist emergency or first aid procedures should be specified here.
This activity entails solving physics problems using a computer program, then watching a streamed lecture. School classrooms are formally assessed to ensure students adopt a good posture while using computers or watching projected videos. This activity is very low risk.

Is special monitoring (e.g. hearing test, eye test, health surveillance) required? If so, please enter details and also contact the University Occupational Health Service.	What personal protective equipment (PPE) is required (e.g. overalls, gloves, respiratory protection, eye protection)? You must ensure that any PPE specified is suitable for the purpose.

Please complete this section to confirm that this constitutes a suitable and sufficient assessment of risk.

Name of assessor:	Signature:	Date:	Name of supervisor:	Signature:	Date:
Maria Kettle		26th August 2020			

This assessment should be reviewed regularly (usually every 12 months), or earlier if there is a material change to the process, the equipment, location or relevant safety technologies. It should also be reviewed when new people are involved, or after an accident or incident has taken place.

Reviewed by (name)	Signature	Date	Indicate changes here[5]

[1] A list of hazards is provided below to help you, but this may not be exhaustive. If any of these hazards can be eliminated altogether, or can be reduced at source by making an inherent change then we must consider doing so. Hazards in **bold** will also need an additional, more technical assessment on a specialist form - please ask your Departmental Safety Officer or the University Safety Office for further advice.

High or low temperatures	High pressures	**Chemical hazards**	**Biological hazards**	**Genetically Modified Organisms**	
Ionising radiations	**Lasers**	Sharp objects	**Dusts**	Work at heights	**Animal houses**
Magnetic fields	Machinery hazards	Electricity	**Manual Handling**	Noise	Vibration
Falling objects	Collapsing structures	Flooding	Slips, trips and falls	Asphyxiant gases	**Flammable gases**

[2] Please explain how an accident, incident or health condition could arise. We must consider all events which are *reasonably foreseeable*.

[3] Please see the health and safety risk assessment handbook for further guidance on levels of risk.

[4] When deciding on suitable control measures, you should ensure that you are complying with all relevant University policy and guidance documents, and that you have considered the hierarchy of control measures. In order to comply with legislation, we must also take all steps which are 'reasonably practicable' to reduce risk. This means that we should take all steps which are (in terms of time, cost and trouble) reasonable in relation to the reduction of risk achieved.

[5] If changes are extensive, you will need to complete a whole new form, or attach a written amendment. If there are no changes say so.