2020 ILDA AUARDS

The world's best laser shows as judged by their peers





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Cover photo

"Core Reactor" by Lewie Wilkinson First Place, Laser Photography, 2020

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2020 ILDA AUARDS

ILDA Awards Committee

Chair: Richard Gonsalves

ILDA Technical Committee

Chair: Dirk Apitz

Safety Software Sponsor

Roberta McHatton, Laser Safety Services LLC

Technical Producers, ILDA Awards Presentation online

Will Carder and Newlin Parker

ILDA Board of Directors for 2020

President: Brian Gonzalez

Directors: Bradford Billet, Olga Eser,

Roberta McHatton, Christopher Short

Secretary: David Kumpula

ILDA Executive Director

Patrick Murphy

LASER SAFETY INFORMATION

ILDA requires its Members to perform safe and legal laser shows. All Members submitting ILDA Award entry videos have explicitly certified that the laser effects depicted meet safety standards, as well as all applicable laser safety laws and regulations (including laws for audience scanning) in the location where the show was performed.

- Entries filmed in a studio, with no audience, can use any power and can scan anywhere, even if the original show was intended for an audience.
- However, if the video depicts an audience watching the laser show, or has lasers near performers, then the show must be safe for the audience and performers, and must comply with all applicable laws and regulations.

ILDA Awards safety review

In addition to entrant statements, ILDA reviews every entry for any potential safety issues. **ILDA has the right to remove or disqualify an entry if, in our opinion, the show violates or appears to violate safety standards, laws and/or regulations.**

Note that despite ILDA's review process, ILDA cannot absolutely certify that an Awards entry is safe and legal. This is ultimately the responsibility of the entrant.

If you have a laser or a laser projector, do NOT attempt to perform the type of audience-scanning effects seen in ILDA Award-winning videos 1) without qualified expert safety planning and supervision and 2) without prior written permission from the appropriate authorities. These authorities may include federal, state and local laser safety regulators, venue operators, and insurance companies.

ENTERING, JUDGING, AND YOTING

Artistic Awards

Judging was done in June 2020 via online viewing and voting. Judges were Christine Bernat, Brad Billet, Theo Dari, Mike Dunn, Olga Eser, Derek Garbos, Tobias Gebuhr, Marco Hoyer, David Kumpula, Dave Nash, Theo Petrides, Marc Rubin, Merlin Schaadt, and Markus Steblei. Judging coordinator was Awards Committee Chair Richard Gonsalves. Together they judged 170 video entries from 36 ILDA Member companies.

Note that for each of the artistic award entry categories, there were three judges. However, these were not always the same three people. A person was not allowed to judge any category in which they had an entry, which is why there were multiple persons serving as judges.

Laser Photography and Career Achievement Award

Twenty-seven Laser Photography entries were judged by ILDA Members voting online, June 15 - June 22, 2020.

Career Achievement Award

Seven nominees were presented to ILDA Members, who voted online July 10 - 17, 2020.

Fenning Technical Awards (standard and IDN)

Technical entries were judged via online discussion of a threemember panel that concluded July 16, 2020. Judges Paul Clark, Helmut Gruber, and Dave Nash evaluated six entries from six ILDA Members.

Laser Jockey

Judged by attendees watching the Laser Jockey performances streamed live during the online ILDA Cloud Conference, November 21, 2020.

2020 ILDA AWARDS



ILDA OFFLINE CONTESTS

With laser shows being shut down in spring 2020, and with many Members required to stay at home, Awards Committee chair Richard Gonsalves proposed that ILDA hold a contest to raise our spirits and give Members something fun to do during the crisis. The Board agreed to Richard's idea and his generous personal sponsorship of the ILDA Offline awards.

ILDA Offline: Beams/Atmospheric shows

The first set of contests had three rounds, starting March 30, April 13 and April 27. Entrants had nine days to create a show set to ILDA-selected songs, and to upload video of their show. The videos were given anonymous names, and were then judged online by ILDA Members and the general public.

Round 1, First Place: Entry "1B-3", Evaldas Lapenas

Round 1, Second Place: Entry "1B-6", Jimmy Boucher, ER Productions Round 1, Third Place: Entry "1B-2", VisuTek e.U. (Programmer: Markus

Voggenberger, Laser operator: Helmut Gruber)

Round 2, First Place: Entry "2B-2", VisuTek e.U. Round 2, Second Place: Entry "2B-6", Peter Hermanns Round 2, Third Place: Entry "2B-1", Tobias Höfer

Round 3, First Place: Entry "3B-2", VisuTek e.U. Round 3, Second Place: Entry "3B-7", Peter Hermanns

Round 3, Third Place: Entry "3B-4", Anders Edström, Laserimage AB

The "Best in Show" winner was chosen from the three First Place winners. It was voted on by ILDA Cloud Conference attendees on November 21 just after the Laser Jockey competition.

Best in Show: Entry "3B-2", VisuTek e.U. (Programmer: Markus Voggenberger, Laser operator: Helmut Gruber)

ILDA Offline - Connected: Graphic & abstract shows

A similar contest was held starting May 21 with a deadline of June 21, for shows with graphics and abstracts. The start and end frame of each show was required to be the same ILDA-provided frame so all the entries could be "connected" into a single, unbroken show.

Graphics, First Place: "Grph02", Dreamlaser

Graphics, Second Place: "Grph01", Bas Verstraelen and Jürgen Kleine

Graphics, Third Place: "Grph04", Tim Walsh

Abstracts, First Place: "Abs02", Mike Dunn, FirstLight Laser

Abstracts: Second Place: "Abs01", David Françus

(No Abstract third place awarded)

CORPORATE SHOU



BT - Beyond Limits

ER Productions

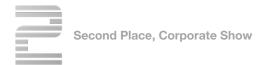


To launch their re-brand and new brand ambition 'Beyond Limits', BT held an epic World-Record-breaking indoor drone show with a performance from pop star Jess Glynne at Wembley Arena. We provided 83 laser fixtures, 48 of which were on a 3m ring that created a focal laser display in the centre of the stage. The technological showcase was coded by young school children to promote BT's Skills for Tomorrow programme, and who were able to control the colours and effects of our lasers themselves, live on stage!

Credits: Laser Design: Ryan Hagan & Ben Couch; Laser Programmer &

Operator: Oliver Jenni

Music: n/a



Interface

Orion-Art Multimedia



This multimedia show was made as an introduction to the evening program of the *Interface* festival. *Interface* is a joint conference of the associations of entertainment industry eventors and the association of technical show business companies. The conference was held in the original form of a duel of speakers. Therefore, the theme of dueling pistols runs through the entire show. Topics for discussion are also presented allegorically.

Credits: Laser and video graphics: Kirill Nikitochkin, Alex Panin; Beamshow: Sergey Maltsev; Water design: Michael Smirnov; Art Director: Alex Panin;

Technical director: Taras Viter; Producer: Alexander Timofeev.

Music: Sarah Brightman, Woodkid



PV Live

Merlin Schaadt



Every year PV Automotive, a supplier of car workshop equipment, invites their customers to a big private exhibition with a big party. This year's show had to be a combined intense & modern intro with a product introduction of a new released software. Therefore we started the show with a custom made 3D sport car animation with overlapping laser lines using some special grating effects on the projection. After that 3D car intro we pointed out the new key features of the software with combined video/laser projections, always with beam show and lighting support to a room-filling experience.

Credits: Storyboard: Merlin Schaadt; Laserdesign/ Operating: Merlin Schaadt; Sounddesign: Andreas Hillesheim; Video/3D: Thomas Knispel, Tilmann Finner, Merlin Schaadt

Music: Custom Version of Colossal Trailer Music, "Octane"

LINE TY SHOU



Eurovolley

KVANT Ltd.



International volleyball match opening show

Credits: Programmer: Jakub Dibdiak; Videoprogrammer: Vladimir Stefanek,

Jakub Gavalier

Music: Mike Reed & Marrhew Robertson "The Alarm; Midtro & James Stailey

"Andromeda"



The Voice UK Final

ER Productions



We provided the lasers for the dramatic finale of The Voice UK for singing legend Tom Jones and the talented Bethzienna.

Credits: Laser Design: Ben Couch, Laser Programmer & Operator: Tom Vallis Music: Bethzienna & Sir Tom Jones, "'Don't Let Me Be Misunderstood"



Strictly Come Dancing

ER Productions



We were proud to supply and operate a stonking 66 fixtures for the finale show of Strictly Come Dancing. During the opening number, RGB scanning lasers enthralled the audience as they tracked with the dancers in an immaculately choreographed, interactive routine. Lightweight interconnecting lasers then brought the energy up with a dazzling display as the entire cast took to the floor.

Credits: Laser Design: Ben Couch, Laser Programmer & Operator: Oliver Jenni Music: Kygo & Whitney Houston, "Higher Love"; Sister Sledge, "We are Family"

EDITED FILM/TV/VIDEO



Expo 2020 Be There

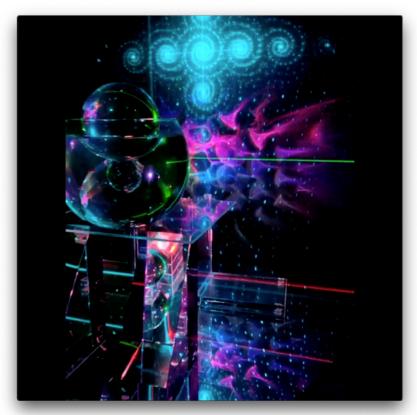
Laser Saga



Lasers were used in a few key segments during the shooting of *Expo* 2020 promotional video. Even though each element is seen for fractions of seconds, in reality it was days of prep work followed by two shooting days in studio.

Diving Deeper

Lewie Wilkinson



Created in my closet - solo - my hobby. Setup details:

- RGB laser projector through diffraction through glass (lumia) sometimes rotating, then refocused by a semisphere for the background ("behind" the centerpiece).
- 488nm (blue) + 638nm (red) being redirected by PBS cubes
- 520nm (green) going horizontally, behind
- 638nm going through star field diffraction grating
- 488nm through spiral diffraction grating + diamond diffraction grating or 300 lines/mm diffraction gratings
- 495nm (cyan) through starfield diffraction grating
- First surface mirror salvaged from rear projection TV

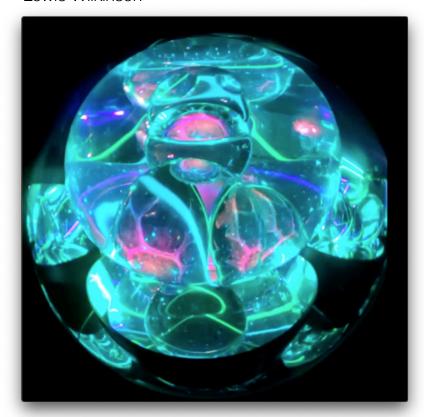
Credits: Created, recorded and edited by Lewie Wilkinson

Music: BORNS, "10,000 Emerald Pools"



Glad to Be Here

Lewie Wilkinson



Created in my closet - which is my "studio". This is my hobby. Setup details:

- RGB laser projector through diffraction through bumpy glass dish (lumia) then refocused by a small glass sphere for the background (what you see "through" the centerpiece).
- Three beams reflected behind 405nm (violet) 505nm (water green) 488nm (pretty blue)
- 488nm (blue) + 495nm through starfield diffraction grating
- · Second RGB laser projector used for some background effects
- First surface mirrors salvaged from rear projection TVs.

Credits: Created, recorded and edited by Lewie Wilkinson

Music: FC Kahuna, "Hayling"

LASER SHOW WITH ADDED EFFECTS/MULTIMEDIA



Third Place, Laser Show with Added Effects/Multimedia

Titanium

LOBO



Following the music, this show travels through various worlds, which evoke different emotions. The feature is complemented by a fountain flame, which combines the elements of fire and water in an equally astounding manner as the show combines calm and tension. Thanks to the matching ambient lights of the moving heads, the show journeys further into an inspiring artificial realm. Of course, this category is not lacking in accents provided by flame jets.

Credits: Michael Leimann: show designer; Florian Skrzypczak: creative director **Music**: Juno Reactor, "Conquistador", "Feel the Universe"



Nature

dreamlaser



Multimedia laser travel takes audience to different parts of our planet, allowing them to see the life of their inhabitants.

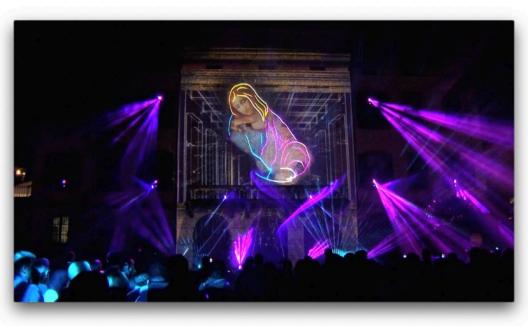
Credits: Alice Soboleva, Olga Saveleva, Catherine Studenova, Yulia Belyakova,

Evgeniy Kudryaytsev, Sergey Zabosin, Alexey Kozin

Music: Audiojungle + SFX

Leonardo II Genio Immortale

Marco Inselvini



Leonardo II Genio Immortale is a video mapping and laser show created for the famous market exhibition in Bienno to celebrate the 500 years of his death.

Credits: Laser & videomapping: Marco Inselvini, Light designer: Kevin Vielmi. **Music**: Alan Lennon, "Bitter Sweet", Jeremiah Pena, "Temporal dimensions", 2WEI, "Neptune"

PLANETARIUM SHOU



Cosmic Live Electronic - Karalow and Przezdziecki

Copernicus Science Centre



In this live planetarium concert we dive in the depth of cosmos with deep ambient music. The music is not a written composition, it is a live improvisation. Both lasers and visualizations on the dome are not prerendered either, they are live controlled. Lasers do not play the main role, they are there to emphasize the mood and match the visualizations on the dome. They are ascetic yet powerful, following the rule 'less is more'.

Credit: Mateusz Wyszynski

Music: Andrzej Karalow, Jerzy Przezdziecki - improvised concert

NIGHTCLUB/DISCO/MUSIC FESTINAL SHOW



Lost Lands Festival 2019

Lightwave International



Everything bigger and better than before, the Lost Lands venue is saturated with laser for maximum sensory overload.

Credits: Programming: Dave Hauss, Anthony Garcia; Laser Technicians: Neal

Nance, Jarren Drew.

Music: Various

Lumen

LaserTech Canada



A live EDM indoor concert. The beams were sharp and bright with excellent color balance. Lots of projector delay effects were used to add to the great timing.

Credits: Installation: Nicolas Squire, Cameron Garbos; Laser Operator: Nicolas

Squire

Music: Above & Beyond, Cedric Gervais, Shaun Frank.

Hope - Transformations

Visual Sensation lasershow & technologies



Video footage of an all-night event taking place in a closed hall. The show included pre-programmed elements as well as a live performance.

Credit: Maciej Lukaszewski, laser designer

Music: Acues "Hope Original Mix", Markus Schulz, Venom One "Crashed &

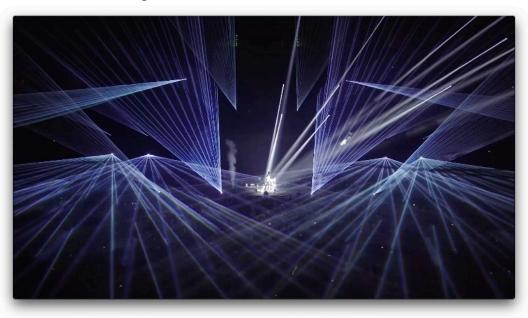
Burned feat. Adina Butar Markus"

LINE STAGE SHOW



Alan Walker Aviation Tour

Laserimage AB

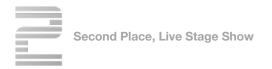


Alan Walker wanted to do a live tour together with a band and a massive stage show. The whole show had around seven tracks with laser.

Credits: Programming: Love Karlsson; Laser tech: Johan Lindell, Anders

Edström

Music: Alan Walker, "Lonely", Alan Walker, "Play"



Tame Impala at Coachella

ER Productions



We supplied Coachella's Saturday night headliner, Tame Impala, with a spectacular laser show, using 34 laser fixtures with 1,020 watts - one of our most powerful shows to date! Tame Impala wanted to make a big impact at Coachella and the SFX production had to be impressive and build upon the buzz already surrounding their upcoming album. We played a key role in the design and programming of the show, more than delivering on the 'modern day take on 60s psychedelia' brief to create a visually spectacular, mind-blowing set.

Credits: Laser Design: Marc Webber, Laser Programmer & Operator: Ross Marshall

Music: Tame Impala, "Elephant", "The Less I Know the Better", "Eventually", "New Person. Same Old Mistakes"



Swedish House Mafia

ER Productions



We supplied Swedish House Mafia's 'Save The World' Reunion World Tour 2019 with an amazing three tons of laser and SFX equipment. This sleek show is complemented by an impressive 53 laser fixtures. Thirty-six laser fixtures create a stunning visual of their iconic three-dot logo (12 laser fixtures per ring).

Credits: Laser Design: Sam Tozer and Ryan Hagan, Laser Programming: Alex

Wilson and Alex Oita

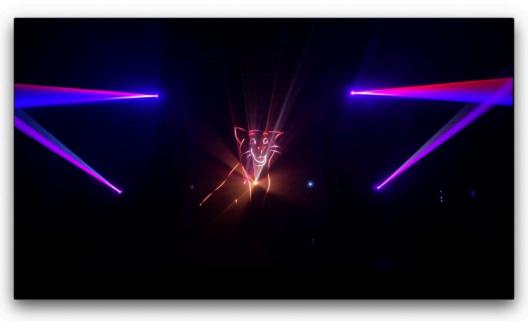
Music: All tracks by Swedish House Mafia

MULTI-EFFECT LASER SHOW



Cat's Day

dreamlaser



A fun positive laser show about March cats dedicated to the International Women's Day on March 8.

Credits: Alice Soboleva, Olga Saveleva, Catherine Studenova, Yulia Belyakova,

Sergey Zabosin, Alexey Kozin Music: Audiojungle "Uplifting Strings", Beyonce "Single Ladies", Smooth Jazz

Tribute

100 Years AGH

Mediam



Jubilee 100 years of AGH Presentation on a 40m water screen at the base combined with laser show and pyrotechnics. The place of the show is the Vistula River in Krakow.

Credits: Mateusz Wolski, visual content designer; Bogdan Hanusiak, technical manager; Maciek Bubula, live laserist; Jarosław Musiał, Robert Bubula, Marek Nosek, technicians; Marek Nosek, photo, video; Dron Witold Nogieć Music: Mark Ronson, "Uptown funk ft Bruno Mars", Hans Zimmer, "Time", Cash Cosh @Rozen Matches



God of War

Laser Entertainment srl



This laser show is a typical example of a routine job, that is when we create new shows that can then be used for our customers' events or for demonstrations of our skills in our show room.

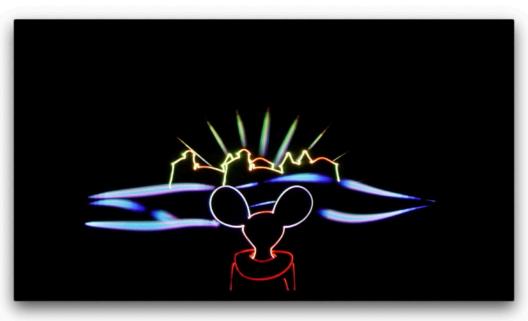
Credit: Lorenzo Pompei, Programmer Music: Junkie XL "God of War"

GRAPHICS SHOU



New Year 2020

dreamlaser



This show was created by using our vision of the topic of New Year 2020. We used variable-focus laser beams, which helped us to change the divergence of the beam on different objects. As a result we highlight certain areas of the show, and to increase the cinematic feel.

Credits: Alice Soboleva, Olga Saveleva, Catherine Studenova, Yulia Belyakova,

Sergey Zabosin, Alexey Kozin **Music**: Audiojungle + SFX



Samir and the Magic Lamp

Visual Sensation lasershow & technologies



An animation about little Samir who got lost. While searching for his parents, he finds a magic lamp. From this moment on, the most beautiful day in his life begins.

Credits: Scenario: Maciej Lukaszewski; Laser designers: Jakub Walus, Anna

Nadolna

Music: Diogenes, "Diogenes"



Jungle Boy

Visual Sensation lasershow & technologies



A short story about Jungle Boy and Fairies, inspired by the story of Tarzan created for a child's day.

Credits: Scenario: Maciej Lukaszewski, Laser designers: Anna Nadolna, Jakub

Walus

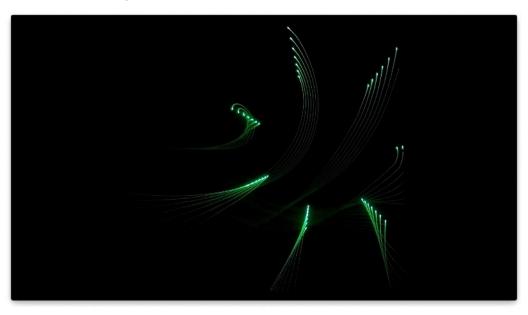
Music: Baltimora "Tarzan Boy"

ABSTRACT SHOW



Bunker Ghost

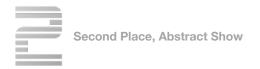
Christopher Short



This is live UV abstract recording as part of a collaborative presentation for "The Bunker" record label. These abstracts were played live through a custom control system I created that runs on an iPad and Raspberry pi. I wanted the sequence to feel like the viewer was inside an atomic cloud chamber.

Credit: Christopher Short

Music: Blue Dot Sessions, "Drone Lemon"



Spellbound

FirstLight Laser Productions



Leaving the audience spellbound with abstracts.

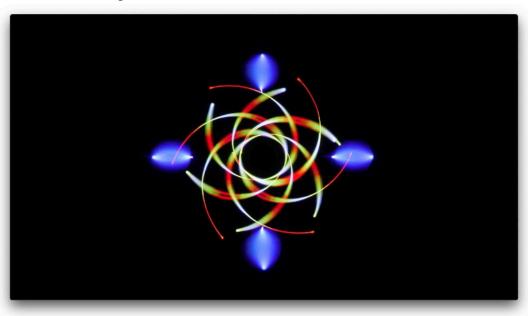
Credit: Programming: Mike Dunn

Music: Siouxsie And The Banshees, "Spellbound"



Rhythm of Love

FirstLight Laser Productions



An experiment using new beam brush technology in an abstract show. Also the world needs more laser shows to Yes music.

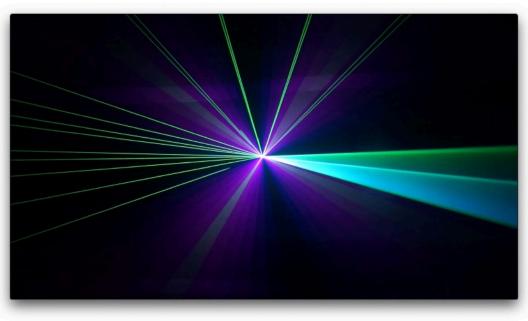
Credit: Programming: Mike Dunn **Music**: Yes, "Rhythm of Love"

BEAMS/ATMOSPHERICS SHOW FOR A SINGLE X-Y SCANNER PAIR



Paint It Black

VisuTek e.U.

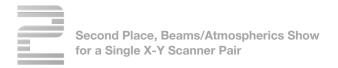


Sebastian Böhm covered the 1966-released Rolling Stones single "Paint It Black" and created a fascinating piece of music. Here we created a fast and powerful show with precisely timed effects.

Credits: Markus Voggenberger: Programmer, Helmut Gruber: Setup and Laser

Operator

Music: Sebastian Boehm, "Paint It Black"



Outlander

VisuTek e.U.



This year we chose the song "Auslaender" (German for "Outlander") from the German rock band Rammstein. It is a song about the topic of sex tourism. We created a very fast and powerful show with this special kind of music.

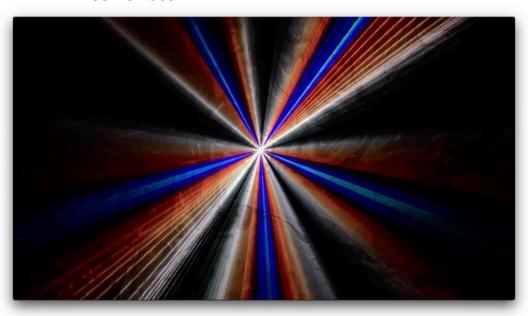
Credits: Markus Voggenberger, Programmer; Helmut Gruber, Setup and Laser

Operator

Music: Rammstein, "Auslaender"

Super Wubtendo

Theo Petrides



Super Wubtendo is an artistic laser show that utilizes carefully choreographed movements and colors throughout the song. The fog is carefully sculpted to accent certain effects like liquid skies and tunnels. This fast paced and energetic show is one you won't want to miss!

Credit: Theo Petrides - Laser Programmer, Operator

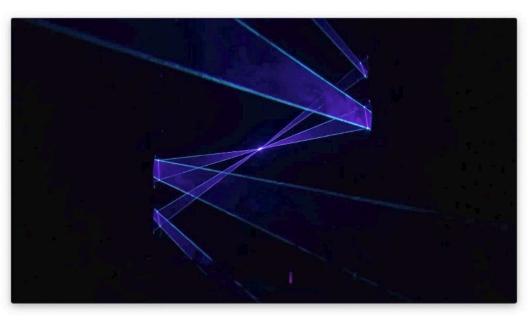
Music: MDK, "Super Wubtendo"

BEAMS/ATMOSPHERICS SHOW WITH OUTBOARD EFFECTS



Death and Desire

Theo Petrides



"Death and Desire" creates a fast paced upbeat atmosphere with vocals and other electronic elements that are accented through the fog. There are 16 carefully-placed mirrors which allow the artist to expand their creativity with only a single projector.

Credit: Theo Petrides: Laser Programmer, Operator Music: Knife Party (feat. Harrison), "Death and Desire"



The Scratch

LOBO



The designer produced this show to the music of a friend of his. The tune is intense, a puristic electronic track, which makes it a perfect match for the high-tech expression within the medium of lasers. With the designer being a stickler for detail, there is no doubt that he managed to find the perfect match between effects and musical mood, despite the restrictions of only using one scanning head.

Credits: Lorenz Winkler, show designer; Florian Skrzypczak, creative director **Music**: Junior Boys, "The Equalizer"



Tunnels Defocused

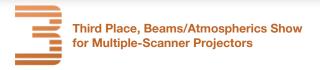
Pangolin Laser Systems, Inc.



To use the new variable-focus laser beam system in such a way as to to trick the brain and compel someone to not look away.

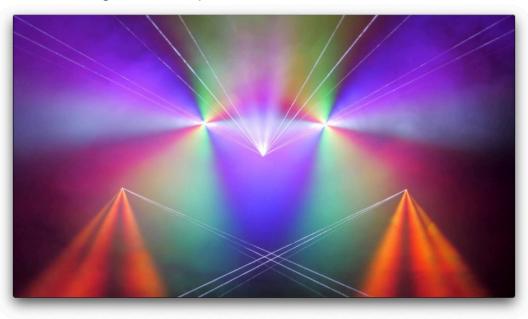
Credit: Creative Director: Lyra Letourneau **Music**: Seven Lions and Echoes, "Cold Skin"

BEAMS/ATMOSPHERICS SHOU FOR MULTIPLE-SCANNER PROJECTORS



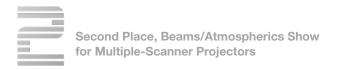
Transitional Energy

Pangolin Laser Systems, Inc.



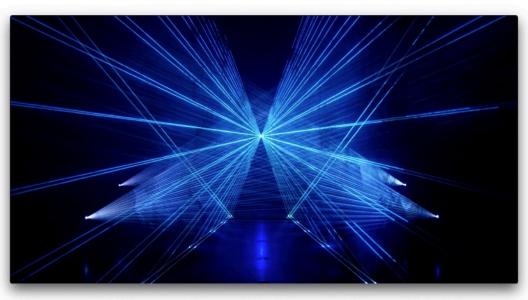
To create a futuristic trailer music style show, using an epic hybrid song merged with the future of laser shows powered by variable-focus laser beams.

Credit: Creative Director: Lyra Letourneau **Music**: Varien, "Born of blood, risen from ash"



Planet URF

Merlin Schaadt



Planet URF is a total different, mystic, crazy style of music and for that reason i wanted to design in a total different way. After hearing the sound for the first time i got some very custom pictures in my head and so i had to create a very custom made setup. The new arrangement gave me the possibility to create much more deepness in the room, new moods and some new effects fitting to this spacey sound. The aim was to be beamed to another planet.

Credit: Laser Design. Merlin Schaadt

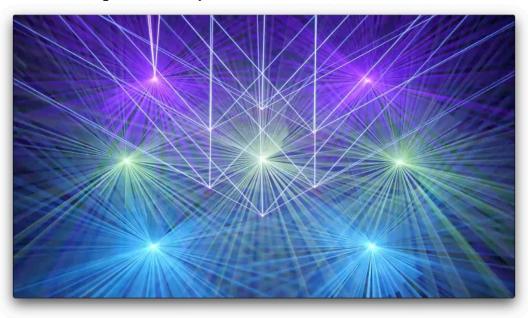
Music: League of Legends, "Login Screen" (2018 World Championship); League

of Legends, "Welcome to Planet URF"



Aquarius

Pangolin Laser Systems, Inc.



To push the envelope of laser shows for a wide audience, by incorporating the right amount of lasers and an epic song that anyone can get behind.

Credit: Creative Director: Lyra Letourneau

Music: Xan Griffin, "Aquarius"

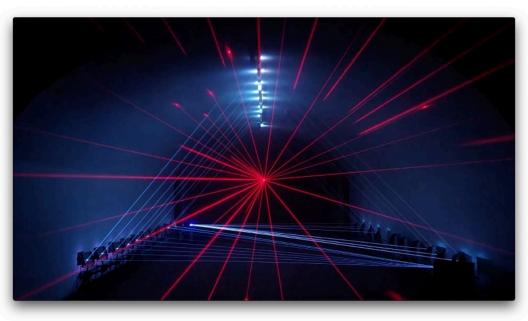
INNOVATIVE AND FINE ART LASER APPLICATIONS



Third Place, Innovative and Fine Art Laser Applications

Q

dreamlaser



The installation was realized at an international festival of audiovisual art. We were inspired history of space, where before located a prison for political prisoners. It was important to create immersion in the mystical atmosphere of the place and draw public attention to the cultural heritage of the building.

For three days laser beams enveloped the space and system of mirrors allowed the length of the basement to be deepened. The musical accompaniment was created specifically for the installation, creating a mystical mood and further immersing the viewer in the context.

Credits: Alice Soboleva, Ilya Boguk

Music: Anny Ly,"Q"



Sestriere Mapping Mountain

Laser Entertainment srl



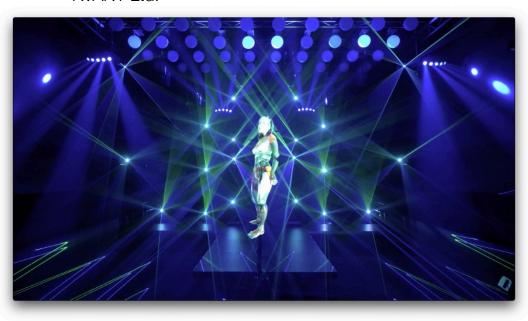
When the organizing committee of the Sestriere women's ski World Cup competitions asked us to offer a show instead of the classic fireworks, in addition to the lasershow in the main square, it came naturally to propose a laser mapping intervention on the mountain in front the village, the projection varied from a minimum of 350 meters up to 1.3 km. from the projection point of our laser truck ... a huge natural screen that we could not leave without a signature!

Credits: Lorenzo Pompei and Federico Colombo, programmers

Music: Dan Phillipson, "All That Remains"; Little Red Church "Full Allure"

Showroom

KVANT Ltd.



Brand new showroom full of the newest laser and multimedia technologies serves as illustration of our skills and technological forwardness for our clients.

Credits: Programmer: Martin Gabčo, Video: Jakub Gavalier
Music: Dimitri Vegas & Like Mike & Ummet Ozcan "The Hum"; Adam Beyer &
Bart Skils "Your Mind"; Mike Reed & Matthew Robertson " Time Means
Nothing"; TV NOVA "Jingel; Disclosure Feat. Eliza Doolittle", You & Me (Flume Remix)"

PERMANENT INSTALLATION



North Forest Lights

LaserTech Canada & Moment Factory



North Forest Lights is a night walk through nature with an immersive multi-media sound and light experience. The creator had a vision to amplify one of the primary viewing points by adding a laser system. Under their artistic direction, we designed, installed and programmed a permanent laser projection solution. Atmospheric effects swirl under the feet of the viewers as they cross the footbridge. The natural setting of the night forest and the view point from above, bring a magical fresh perspective to the beauty of laser light.

Credits: Creator and Producer: Moment Factory for the Crystal Bridges Museum, Laser System Design: Derek Garbos, Laser Installation and

Programming: Nicolas Squire and Moment Factory

Music: Custom soundtrack

Statue of Unity

HB-Laserkomponenten GmbH



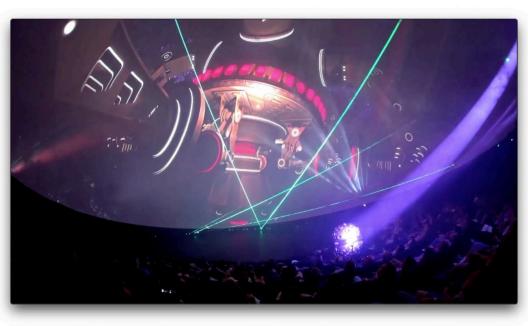
We took the challenge to illuminate the tallest statue in the world, the "Statue of Unity" in Gujarat, India, by a permanent 3D laser and video mapping show. The biggest challenge was the distance of 600 meters (2,000 ft) from the statue, to illuminate the 182 meter (597 ft) tall statue. At the end, we solved the challenge by using 51 25k video-projectors and 6 laser systems with OPSL technology and special beam collimation to get a clear image on the bronze statue. The content of the show tells the story and history about Sardar Patel and the construction of the statue.

Credit: Harald Bohlinger Music: Various musical shows



Experimenta

LOBO



The experimenta is Germany's biggest science center. Its most notable feature, the Science Dome, has a projection surface of 726 m² for 6 360° full-dome video and 6 fiber-optic laser projectors, as well as a 10 m wide, 5.000-nozzle stage mode water screen – for laser graphics shows, beam shows, and shows with actors and special effects. To keep the audience safe from getting hit by any lasers reflected off the 56 effect mirrors, the lower end of the dome is equipped with LIDAR sensors fanning out IR light over several meters, immediately shutting off the projectors in case of an obstruction.

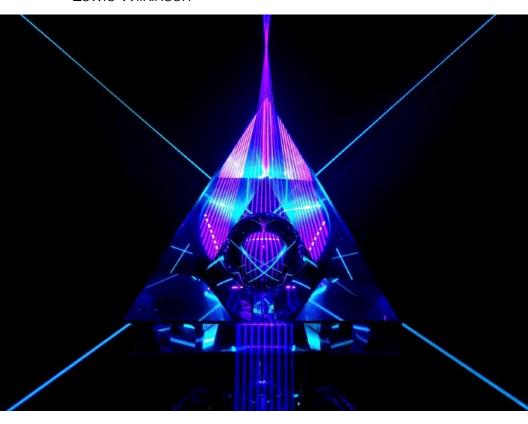
Credits: Mario Janzon, CAD laser installation planning; Peter Bastian, head of laser installation; Werner Most, full dome laser adaptation; Roman Schütz, head of laser design. Architecture design by Sauerbruch Hutton; building construction by Schlaich Bergermann Partner; concept and development of Hybrid Dome by Kraftwerk Living Technologies

LASER PHOTOGRAPHY



Core Reactor

Lewie Wilkinson



Created in my closet - which is my "studio". This is my hobby. Setup details:

- Magenta fan made with RGB laser projector, going under and then reflected back through pyramid after bouncing off concave mirror.
- Lines going diagonally are 488nm (blue) and 495nm (cyan).

Created and photographed by Lewie Wilkinson

Oceanic Galaxy

LOBO



Different materials have been researched to make the laser beam visible. The most intriguing result was achieved using the tiny droplets from a spray bottle, creating the effect of a strange, wild galaxy in the deep blue swirls of an ocean. The turbulent twist of a silken thread within the laser fan additionally obfuscates the process in which this photograph was created.

Credits: Florian Skrzypczak, creative director & photographer; Nadine Mirza, fog/water spray operator; Dennis Bopp, setup; Lothar Bopp, idea



Celestial Photons

Lewie Wilkinson

Created in my closet. This is my hobby. Wavelengths used:

- 505nm (water green) through starfield diffraction grating
- · 488nm (blue) reflecting off mirrors at bottom of pic
- Backdrop patterns by RGB laser through a glass plate (lumia) refocused by a glass ball. Glass plate in center dielectric glass
- 1st surface mirrors making pyramid are salvaged from a rear projection TV

Created and photographed by Lewie Wilkinson

FENNING AUARD FOR TECHNICAL ACHIEVEMENT GENERAL



KB2D Interactive Laser Harp Sensor

Lightdiction SAS

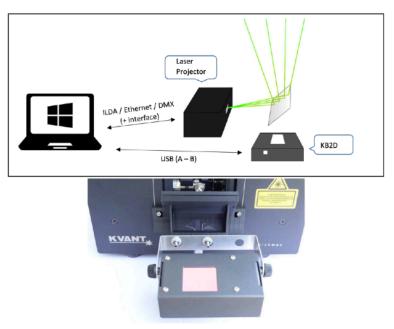


Fig. 1: Typical installation of the KB2D interactive device for a laser Harp application.

The KB2D is a sensor that enables to interact with lasers, for Laser Harp or Laser tracking for instance.

It is very compact, versatile, and does not require any synchronization with the laser. Thus, it can work with any laser projection system.

The KB2D detects in two dimensions: angular position + height variation. Thus, it can be used for discrete applications (laser harp) as well as continuous (laser tracking) for all kind of interactive shows. Thanks to height detection, it also implements pitch variations.



Radiator Laser Synthesizer

Christopher Short

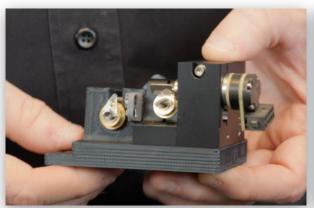


The Radiator Laser Synthesizer is a unique new abstract performance console. It requires no host computer, has a built in display, supports presets, and video output.



Beam Brush

Pangolin Laser Systems, Inc.





A low-cost, compact, opto-mechanical system that is placed in the beam path just before the scanners, which is capable of rapidly changing the beam divergence, under precise software control. This system offers continuously-variable projected beam diameter, and thus, tremendously expands the degree of artistic expression of laser projectors. It is applicable to all uses of show lasers, including overhead beam effects, audience scanning, and graphic projection.

Pangolin has been pursuing the idea of continuously-variable beam diameter projection since 1992. At that time, we coined the term "Beam Brush" for this effect, and put it into every software and hardware system we developed ever since.

In this fifth-generation system, a rotary retroreflector is placed between two lenses. This can focus (actually make the laser spot smaller) and defocus the laser beam in real time, and at the speed of scanning. Beam diameter control is very precise due to the embedded position sensor in the scanner. Beam diameter increase is completely linear with rotation of the retroreflector. The system can be made very affordable – at an incremental cost that is a bit more than the cost of a single scanner and servo driver. Moreover, given that all of the parts are small and take up little space, this opto-mechanical arrangement can be placed right next to the X-Y scanning system, thus taking up very little space, and not requiring an increase in scanner mirror size.

FENNING AUARD FOR TECHNICAL ACHIEVEMENT ILDA DIGITAL NETWORK



IDN Laser Tester

University of Bonn, Institute of Computer Science 4 (Laser & Light Lab)



The IDN-Laser-Tester is intended to provide basic functionality to test an IDN setup. It enables you to easily test your IDN enabled hardware (adapter or projectors) in the local network from anywhere at the event location you want, just using your smartphone, tablet or laptop.

It is able to generate very simple pre-configured test graphic frames on a laser projector, like RGBW colored circles. It also has an integrated IDTF Player which can be used to play pre-configured or own imported IDTF frame sequences. Several parameters for IDTF playback can be selected beforehand or in real-time while playing.

LINE "LASER JOCKEY" PERFORMANCE

The Laser Jockey competition for live performance was held on November 21, 2020 during the ILDA Cloud Conference.

The five competitors did not know what music they would be playing their lasers to. Each one was sent a music file a minute or two before their performance.

Conference attendees watched online as each performance was livestreamed. After all five LJ competitors finished, attendees then ranked their favorites in an online ballot; one vote per attendee.

These are the 2020 Laser Jockey winners:

Third Place

Tim Walsh Laser Spectacles, Inc.

Second Place

Nicolas Squire LaserTech Canada

First Place

Derek Garbos *LaserTech Canada*

2020 ILDA SPECIAL ACHIEVEMENT AUARD FOR DOCUMENTING LASERSHOU HISTORY



Bjorn Schaller

Documentary Filmmaker/Producer

Presented to Bjorn Schaller, creator, director and producer of the feature-length documentary "Laserium, The Gods of Light." This labor of love traces the rise, and fall, and rise again of commercial laser light shows, highlighting pioneers Ivan Dryer and Dr. Elsa Garmire — who are not widely known to the general public — and the company they founded, Laser Images Inc. The film is entertaining for general audiences, while bringing wonderful memories back to laserists who lived through those exciting times.

Citation

In 2015, Bjorn Schaller filmed a collaborative performance between Laser Images Inc. (then run by Jon Robertson) and the Laguna Art Museum. He edited the four-hour event into a one-hour show which was shelved. But he felt the story of laser shows was interesting enough that he contacted Laser Images with the idea to make a film.

Part of his enthusiasm for the project was his own personal inspiration related to Laserium®. In 1978 he attended a Tangerine Dream concert which included Laserium-created backgrounds. This inspired him to move from being a classical pianist to working with synthesizers and eventually into film composition and editing.

Schaller's idea was audacious since, though he worked in post-production, he had never before made an entire film. He put together a budget and timetable in December 2015. He projected that it would take one year, full-time, to produce a 90-minute documentary on laser shows and Laserium.

He contacted ex-laserists who were very helpful. For example, Ron Hipschman had digitized 30 years worth of Laserium video clips and stills. It took Schaller six months to watch every one of the over 4,000 clips and images.

He also was able to document the last year of Laser Images in their Van Nuys location, and to film the last Laserium show there. He spent significant effort to have the laser imagery look as good as possible within the non-coherent, lower dynamic range of film and video. In one case, he spent hours adjusting settings to get minutes of really good-looking footage.

Schaller was able to meet Ivan Dryer, who unfortunately was not healthy enough to be interviewed. Schaller recalled "I kept visiting him while progressing with filming and watching his decline. The last time I was with him, I played a few scenes from the film on my laptop, holding it over his bed. Ivan said: "it looks much better than I expected" and "I can't even walk, but you make me fly". That made me feel so good about what I was doing, I started to ignore that it was taking longer and longer."

He was ready to start editing in mid-2017 but suffered a series of personal setbacks including a three-week period in which his closest friend, his closest family member, and Ivan Dryer all passed away.

During 2018 he edited the film, and wrote and recorded the music. Then in November 2018 his home burned down in the California wildfires. Fortunately for the film, the footage and materials were at his studio, which was untouched. He moved into the small, windowless studio and worked 24/7 for eleven months to finish the film and a trailer. Schaller recalled "It was like being at a laser show for almost a year."

His goal was to complete the documentary in time for the November 2019 ILDA Conference in Orlando. He did make that goal, after 80 days of filming, 500 days of editing, and 5,000 hours of recording, mixing, color correction and "thinking about it."

"Laserium, The Gods of Light" had its world premiere in front of a closed, private audience of ILDA Members. Many who had lived through the events were mistyeyed at seeing their passion finally captured on film.

The result is an artistic and technical achievement:

- * Looked at solely as a non-fiction film covering a particular subject, it equals or surpasses the quality of documentaries on outlets such as PBS, the Science Channel, Netflix, Hulu, etc.
- It covers the evolution of a unique art form by following the pioneering company whose name is synonymous with laser light shows.
- Within our industry, it is the only detailed, filmed history of what we do everyday.

For his tireless devotion and personal sacrifice in bringing the Laserium story to the general public and our Members, the ILDA Board of Directors votes to honor Bjorn Schaller with the 2020 ILDA Special Achievement Award for Documenting Lasershow History.

An ILDA Special Achievement Award is given for significant achievements that are not already sufficiently covered by existing ILDA Award categories. It was instituted in 2013. Nominations are made to the ILDA Board of Directors who then vote on whether to give a Special Achievement Award for that year. Thus far, it has only been awarded in 2013 and this year in 2020.

2020 ILDA CAREER ACHIEVEMENT AUARD



Christine Jenkin

LaserNet/Laser Production Network

In April 1989 I moved to Miami. At this time, I had many years in theater and lighting, so when I was looking for work, I answered an ad for an administrative assistant at a laser company. That is how I came to work for Tom Harman's company, then called Laser Productions. After a 1993 merger it became Laser Production Network – "LaserNet" for short.



LaserNet is a founding/charter member of ILDA. In 1995, LaserNet hosted its first ILDA conference, in Miami. I was very involved in producing this conference. In many ways this was my introduction to many members of ILDA.

In 1996, I was made Vice President of the company.

In 2003 I decided to become more involved with ILDA. I joined the Conference Committee. In 2004 I worked to achieve ILDA's first self-hosted conference, in conjunction with the LDI show in Las Vegas.

Due to this success, LDI worked with us again in 2007, assisting us with a large demo room. LDI in Orlando had its own Laser Theater! I recall it was here that most of us saw real 60k scanning for the first time!

I continued to work as Conference Committee chair. Every year, planning the conference, getting the hotel, food and beverage, working with the Awards Committee so they had what they needed, etc.

During this time, LaserNet continued its support by hosting additional conferences: In 2008 we hosted that year's Conference on board the

Carnival *Imagination*; 2010 we hosted again on the Carnival *Destiny*; 2014 again in Las Vegas; and assisted again on 2019 in Orlando.

In 2008 I was first elected to the ILDA Board of Directors. In 2011 I was elected President and kept that position until 2016. During my term as President, I incorporated many changes to ILDA. Education and branding were very important to me. Giving the members value for their membership fee was also important to me.

Being a long time Girl Scout troop leader, my personal goal for anything I do is to "leave it better than you found it". I feel that is what I have done with ILDA. As ILDA's president from 2011-2016, I feel I left ILDA in a much better place than I found it. (And of course I continue to work for ILDA as Conference Committee chair.)

Steve Heminover, Aura Technologies, Former ILDA President, Board member, and 2011 CAA recipient had this to say:

"Here are a few things that make Christine Jenkin an outstanding candidate for the Career Achievement Award.

- 1. Only the second woman elected president of ILDA in 2011.
- 2. Served as president for 5 consecutive years!
- 3. She led the team that created the first "No Host" ILDA meeting in Las Vegas in 2004, which many thought impossible.
- 4. She was able to get LDI to join with ILDA for a combined conference in Las Vegas, also in 2004.
- 5. She has been a shining resource to many people over many years for promoting Laser Safety.
- 6. She is one of the pioneers that have helped to make this an industry that is known throughout the world."

In conclusion, I would like to say thank to the persons who nominated me and to those who decided to vote for me. I consider this a great honor to be included among so many fellow ILDA CAA recipients who I have long admired.

ILDA Career Achievement Award Recipients

1989	(not awarded	2010	2015
Ivan Dryer	1994-2003)	Lothar Bopp	Dirk Baur
1990	2004	2011	2016
Seiji Inatsugu	Patrick Murphy	Stephen Heminover	Dr. Alexander Timofeyev
1991	2006	2012	2017
Floyd Rollefstad	Doug McCullough	Tom Harman	Alex Hennig
1992	2007	2013	2018
Jennifer Morris	William R. Benner, Jr.	Pavol Kubošek	Glenn Thomas
1993	2009	2014	2019
Robert Mueller	Greg Makhov	Tim Walsh	Alberto Kellner-Ongaro

OBSERNATIONS ABOUT THE 2020 ENTRIES

The following is from a June 5 email from ILDA's Executive Director, who initially reviews each ILDA Award entry.

Every year it is exciting to see the creative and innovative laser work that you, the Members, have done. Maybe it's the coronavirus <g> but this year seemed especially inspiring. I can't believe how great some of the entries are.

And, this says especially good things for the future of our industry once we can get back to public shows.

Here are some highlights:

Laser drawing on photoluminescent (UVsensitive) screens continues to improve. The amount of detail on these drawings can be astounding. And for abstract shows, the effect of leaving glowing trails increases the visual density and gives a "trippy" effect.

We have a number of entries using variablewidth laser beam technology. This augments graphics by allowing things such as fluffy clouds and depth-of-field effects. But surprisingly to me, it also gives some new looks to beam shows. It is nice to see beam brush finally working as well as we had envisioned in the early 1990s.

There are some **amazing beam sculptures**, where the beam forms words, or forms universes by going through glass and mirrors.

Related to this is the increasing use of **beam line and circle arrays**. These "beam bars" give a nice variety and counterpoint to the "V"-shaped beam emissions we've had for so long coming from X-Y scanners.

There were entries focused on educating and involving people, especially children. I'd like to propose to the ILDA Awards Committee that there be a category for works like this. The purpose would be to highlight work that teaches, that allows the public to interact with laser shows, and which inspires the next generation.

At least one entry was synchronized to the camera frame rate so that shafts of laser light shot out like Star Wars blaster effects. I know this effect has been around a while, but it was nice to see it used in a live TV competition show application. (I think Joe Picard and Adam LaBay pioneered the laser banding effect, and I know Seb Lee-Delisle has done impressive work with it. My apologies if I've missed other significant users.)

With our May 31 deadline, we did get entries that reflected the COVID-19 pandemic. For

example, livestreamed laser performances, and outdoor displays with health messages. At the start of the pandemic, it was odd to see laser operators in masks (odd but safe!).

This year we had the **fewest entries with safety concerns** - thank you! There is still a problem with entrants not supplying our required safety documentation. But I saw no entries that would immediately upset regulators or safety experts.

The **technical award entries** were all really solid. It will be hard for the judges to pick the top three: I admired them all.

I saw one set of graphic shows where there was a **diffuse glow around the vector graphics**. Artistically, it looked like a watercolor wash. It gave additional visual complexity to what would be otherwise simple outline drawings. Technically, I believe it was from a second set of scanners doing the same, overlapping graphics but the laser went through diffusing material. The material may have been irregular since some parts of a drawing had the diffused glow and others did not. Perhaps this is an old technique but it's the first time I recall seeing it, and I loved it.

A few entries had **footage filmed from a drone**. This gave a good wide-angle perspective. I hope it's possible to see more of this. Also, the flying of the drone emphasized the 3D-ness of beams. With a fixed camera, beam patterns can look flat; but when flying through them their three-dimensional essence comes alive.

Another entry set atmospheric laser beams in a forest. Normally we see lasers in human environments: rooms, arenas, stages. To see planes of laser light in nature gave an otherworldly, ethereal look.

I am gratified by how improved most of these videos have become over the past decade. For example, a few people doing studio work have put up a black cloth background and have the scanners output through holes in the cloth. This gives a solid black background that hides equipment, labels and indicator lights.

A majority of the entries had **really beautiful** camera work, especially entries that were done in a studio. Inky blacks; no distracting lights, equipment or reflections; bright saturated colors; varied camera angles, little or no flicker, clear audio. Great work!

STATEMENT OF PURPOSE

From the ILDA Bylaws

The purpose of ILDA is to advance and promote the professional application of laser display

By maintaining standards of safety performance;

By promoting a better understanding between laser display professionals and regulatory agencies;

By fostering the development of new technology;

By promoting the advancement of laser artistry;

By increasing public awareness;

By providing information to the public; and

By promoting cooperation within the industry.

