

# APOMA

American Precision Optics Manufacturers Association



Welcome to the  
Photonics West General Meeting

February 6, 2019

# Meeting Agenda

- Welcome and Opening Comments
- Minutes – O&P Board Meeting
- 2018 Election
- Financial Report
- Membership update
- Workshop Recap
- Committee Reports
- New Business
- SPIE Update

# Board Elections

## Election Results

### Corporate Member

Dave Mohring – OptiPro

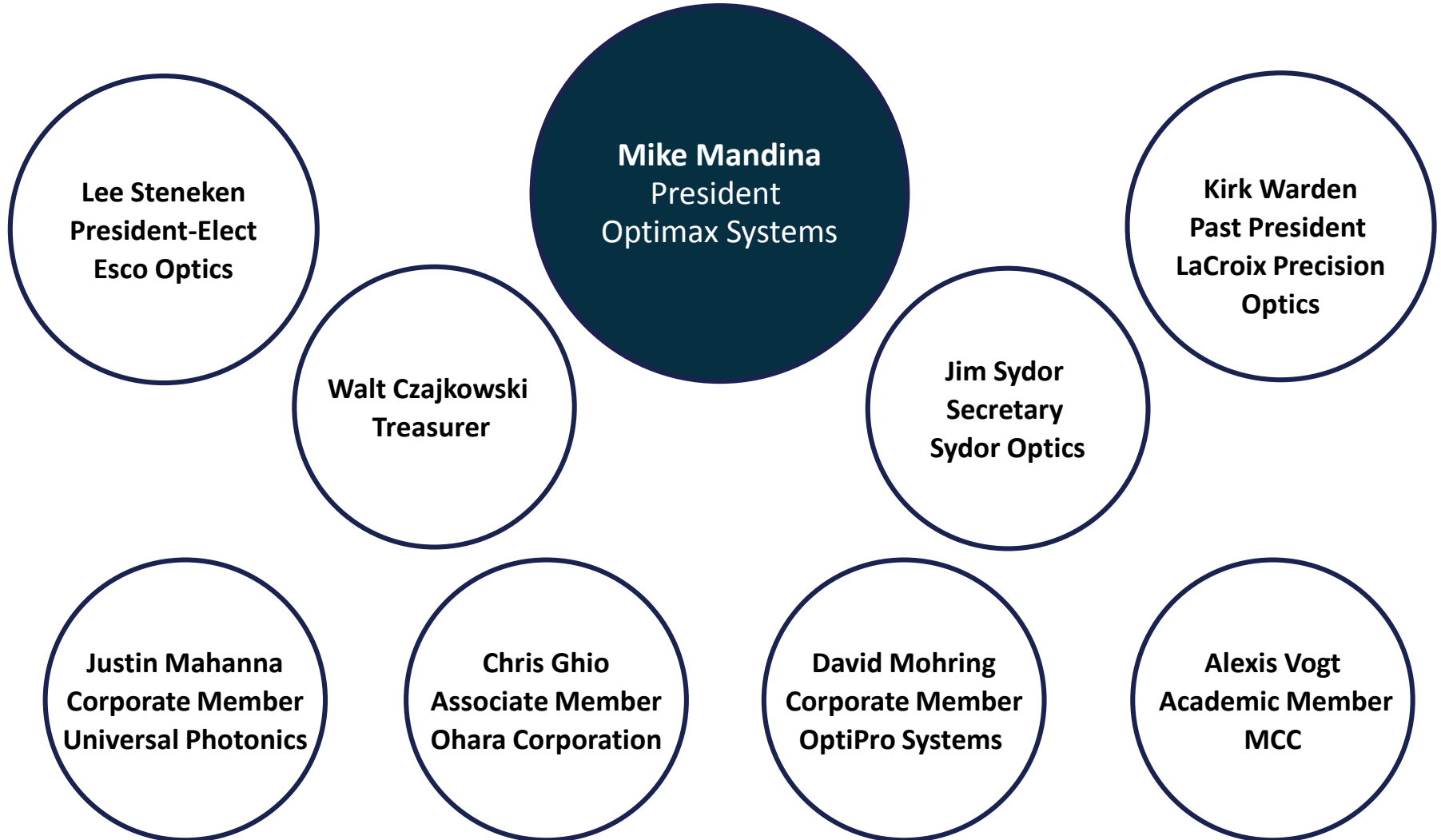
### Corporate Member

Justin Mahanna – Universal Photonics

### 2019 President Elect

Lee Steneken – Esco Optics

# APOMA Board Members 2019

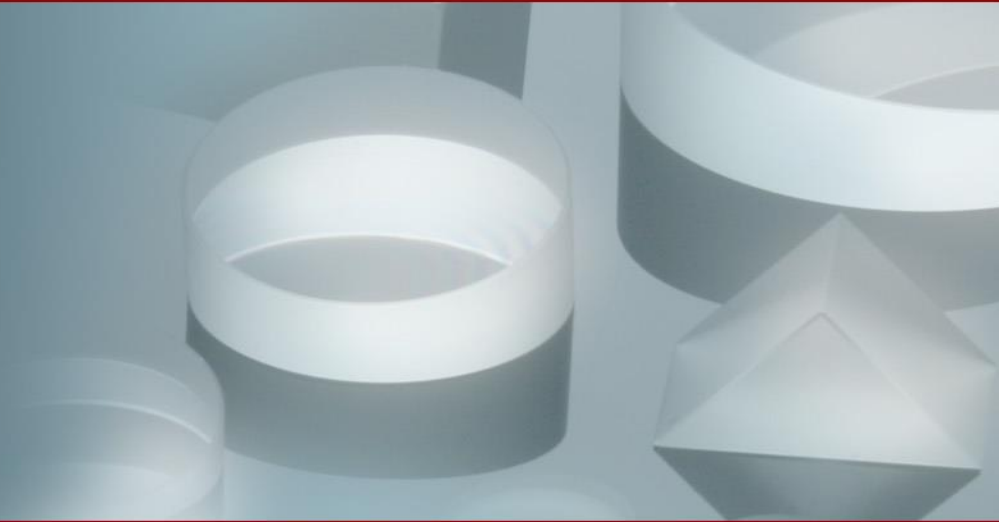


# Board Member E-mails

## Contact information

- Mike Mandina: [mmandina@optimaxsi.com](mailto:mmandina@optimaxsi.com)
- Lee Steneken: [lee@escooptics.com](mailto:lee@escooptics.com)
- Kirk Warden: [kirk@lacroixoptics.com](mailto:kirk@lacroixoptics.com)
- Jim Sydor: [james@sydor.com](mailto:james@sydor.com)
- Walt Czajkowski: [czajkowskiwalt@gmail.com](mailto:czajkowskiwalt@gmail.com)
- Justin J. Mahanna: [justinm@universalphotonics.com](mailto:justinm@universalphotonics.com)
- Chris Ghio: [chrisghio@oharacorp.com](mailto:chrisghio@oharacorp.com)
- Alexis Vogt: [avogt4@monroecc.edu](mailto:avogt4@monroecc.edu)
- David Mohring: [dmohring@optipro.com](mailto:dmohring@optipro.com)
- Michele Stolberg: [michlisa@frontiernet.net](mailto:michlisa@frontiernet.net)

# Financial Review San Francisco 2019



# APOMA 2018 / 2019 Income / Expense

## Income (Projected /Actual)

Retained Earnings	\$183,352
Member Dues* Yr. 2019	\$36,000
Projected Year End Balance	\$219,352
Projected Expenses	<b>\$-43,000</b>
Projected Total Retained	\$175,352
<b><u>Actuals Yr. End 2018</u></b>	
PayPal Account	\$11,645
M&T Bank	\$171,706
YTD Total Balance	\$175,352

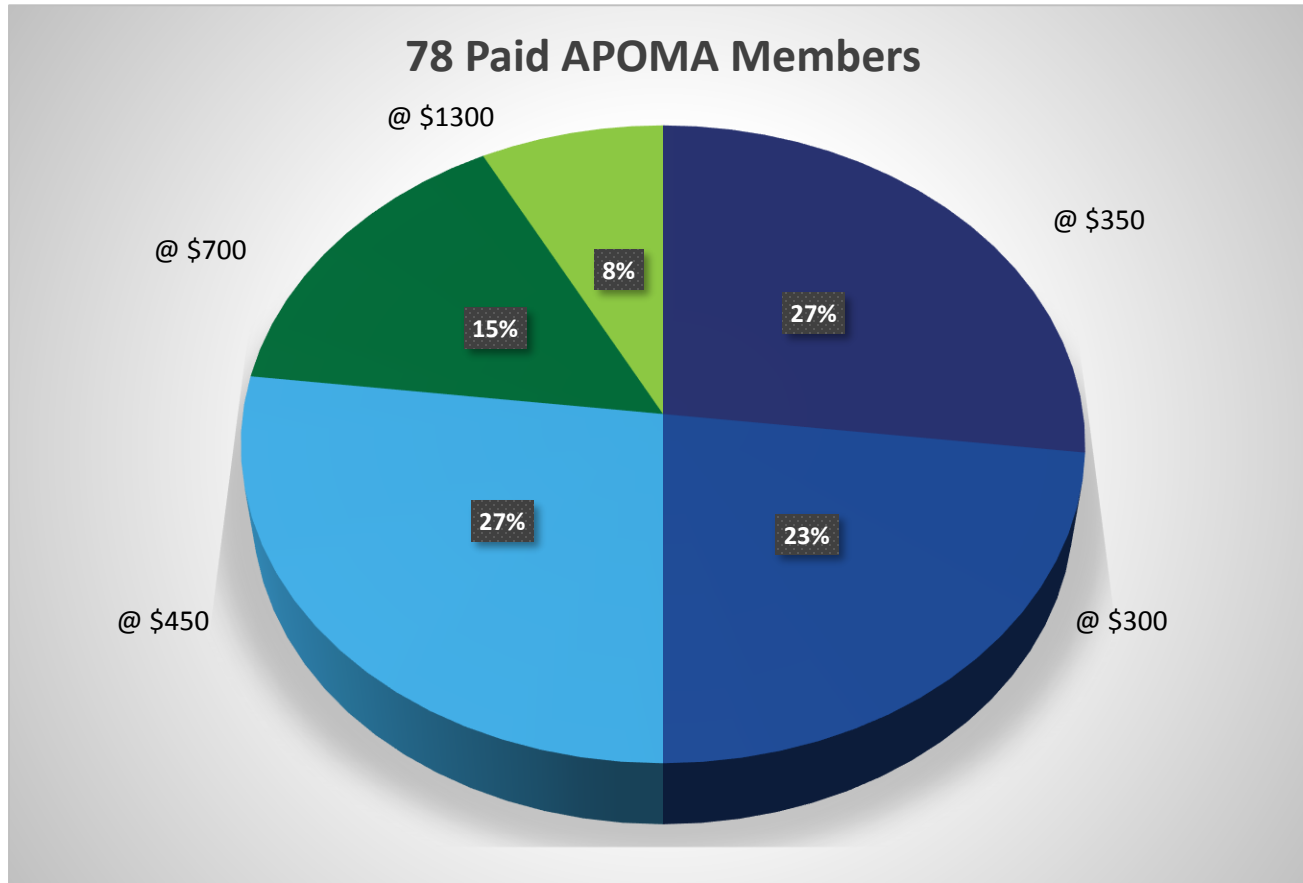
\* Projected Dues Yr. 2019

# APOMA Member Dues Status (1/12/19)

<b>Members Invoiced Yr. 2018</b>	<b>\$53,675</b>
<b>Paid Members Dues</b> 78 paid members	<b>\$38,175</b>
<b>Outstanding Payments</b>	<b>\$15,500</b>



# APOMA Member Dues Statistics Yr. 18



# APOMA Workshop Performance

(10/20/18)

<b>Attendance</b> (72 paid members)	<b>\$32,400</b>
<b>Sponsorship Revenue</b>	<b>\$9,000</b>
<b>Total Revenue</b>	<b>\$41,400</b>
<b>Expenses</b>	<b>\$17,824</b>
<b>Total Revenue</b>	<b>\$23,576</b>

# APOMA 2018 Budget Performance

## Expenses vs. Budget Yr. 2018

Postage & Supplies	\$250 <b>\$82</b>
Dues & Licensing	\$5,500 <b>\$5,000</b>
Tax & Accounting Fees	\$600 <b>\$655</b>
Website Maintenance	\$2,500 <b>\$218</b>
Administration Assistance	\$7,500 <b>\$6,544</b>
Travel	\$7,500 <b>\$5,027</b>
Conventions	\$2,000 <b>\$1,898</b>
Contributions	\$6,000 <b>\$3,000</b>
Workshop	\$12,000 <b>\$15,759</b>
Spent End of Year (red)	\$43,450 <b>\$38,184</b>

# APOMA Yr. 2019 Proposed Budget

Postage, Supplies	\$150
Dues & Licensing	\$5,500
Tax & Accounting Fees	\$800
Web Site Maintenance	\$8,000
Administrative Assistance	\$8,000
Travel	\$7,500
Conventions (OptiFab)	\$8,000
Contributions	\$5,000
Workshop	\$0
<b>Budgeted Expenses</b>	<b>\$43,450</b>

# Membership Distribution

- Current memberships to date (142 members):
  - Academic: 33 members
  - Associate: 31 members
  - Corporate <15: 29 members
  - Corporate 16-60: 26 members
  - Corporate 61-125: 13 members
  - Corporate >125 employees: 10 members
  - Affiliate (non-N. American): 0 members

# New Members in 2018

- Jayco Cleaning (Associate)
- Salem Distributing Company, Inc. (Associate)
- Savvy Optics Corp. (Associate)
- Deltronic Crystal Industries (Corporate, 15 or less)
- Dynamic Optics (Corporate, 15 or less)
- Gray Optics (Corporate, 15 or less)
- Spica Technologies Inc. (Corporate, 15 or less)
- Denton Vacuum (Corporate, 16-60)
- Imax Technologies, LLC (Corporate, 16-60)
- Intlvac Thin Film (Corporate, 16-60)
- Electro-Optics Technology (Corporate, 61-125)
- OptoSigma Corporation (Corporate, 61-125)
- Corning Tropel (Corporate, 125+)
- Lockheed Martin (Corporate, 125+)
- Argonne National Laboratory (Academic)
- Niagara College (Academic)

A 3D rendered image of various optical components, including cylindrical lenses, a triangular prism, and other geometric shapes, set against a dark blue background with a red horizontal band at the top.

# APOMA Technical Workshop 2018 – Mike Mandina

# Technical Workshop Discussion

Conference was held at the Garre  
Vineyard and Winery





# Technical Workshop

Laser Tech Workshop

October 18 & 19, 2018



VINEYARD & WINERY  
LIVERMORE, CA



- October 18 & 19, 2018
- Garre Winery - Livermore, CA
- LLNL Tour
  - LLNL
  - Savvy Optics
  - Universal Photonics
  - OptiPro
  - Schneider Optical
  - SPICA
  - Optimax
  - Jayco Cleaning
  - Optotech
  - Eminess
  - QED
  - Ray Williamson Consulting



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# Technical Workshop

Laser Tech Workshop

October 18 & 19, 2018



VINEYARD & WINERY  
LIVERMORE, CA



## • Presentations:

- Materials Science of Optical Fabrication
- Novel Optics Polishing Using MRF
- Nano Scratching of Optical Materials to Determine Polishing Removal Function
- Predictive Models for Grinding and Polishing of Various Optical Materials
- ISO 10110 Standards, Optics, Quality and Profits
- Achieving and Superseding Laser Surface Requirements
- Ultrasonic Fabrication Methods and Applications
- Machining of Freeform Optics for Infrared Applications
- Laser Damage Testing and New Laser Damage Standards
- Ultrasonic Cleaning of Optical Surfaces
- Work Manufacturing Concepts for Large Cylinder Lenses
- Three-dimensional Configurable Optic Material for Precision CNC Optical Polishing
- Latest Advancements in MRF and SSI Technologies
- Additive Manufacturing of Glass Optics

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A 3D rendered image of various optical components, including cylindrical lenses, a triangular prism, and other geometric shapes, set against a dark blue background with a red border at the top and bottom.

# APOMA Committee Updates

# APOMA Committees

## Committees and Current Chairs

- Apprenticeship – Alexis Vogt
- ISO10110 – Walt Czajkowski
- ITAR – Kirk Warden
- Marketing – Lee Steneken
- Optifab – Justin Mahanna

# Apprenticeship Committee

- Goal: Precision Optics Manufacturing Technician
  - Trade outline written in every state
  - Nationally recognized, apprenticeable trade
  - Designated number of training hours of & related instruction
- Current state:
  - NYS certified Precision Optics Manufacturing Technician
  - Intermediary program funded by the RTMA
    - Covers paperwork, grant funding, connecting to related instruction and helping companies register apprentices
    - Registers the program, interacts with NYS apprenticeship council

# Apprenticeship Committee

- NYS Certified: Optimax Precision Optics Manufacturing Technician
  - 10 apprentices registered (8 in rotation, 2 in queue)
  - Start a new apprentice every quarter
  - 3 year rotation
  - Trade outline describes the work processes that need to be learned, but does not define how they are taught
  - 1:1 ratio of apprentice to journey worker required
  - 6000 hours of experience & 144 hrs/yr of related instruction
  - Related instruction taught at Monroe Community College

# Apprenticeship Committee

- RTMA Process:
  - JML Optical – 2 apprentices; cohort model
  - OptiPro – 5 apprentices; Sydor Optics
- Challenge: Availability of the required related instruction
  - MCC is the only community college awarding associate degrees in precision optics
  - Additional precision optics manufacturing CC programs needed
  - Front Range Community College in Boulder, CO
  - Sussex County Community College in Newton, NJ

# Apprenticeship Committee

- Seeking grant writer to secure funding for apprenticeship initiative
  - Dedicated national apprenticeship coordinator
- Additional discussion following APOMA general meeting this morning



# Export Controls Briefing

## BakerHostetler

Kerry Scarlott

Partner

## BakerHostetler

Baron Avery

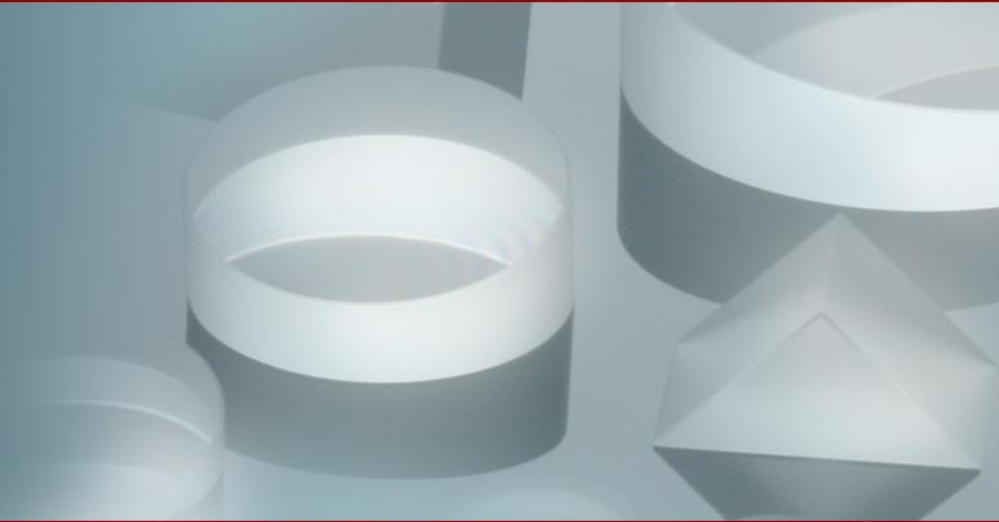
Partner

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# SPIE Update

Diane Cline – SPIE



# Other Business?

