8:00 P.M. LAWN CONCERT

**Princeton University Orchestra**

Michael Pratt S82, Conductor

*Featuring: Copland, Fanfare for the Common Man; Dvořák, Carnival Overture and Violin Concerto (Finale); Rodgers & Hammerstein, The King and I (selections); and Mozart, Sinfonia Concertante*

9:15 P.M. FIREWORKS

*By the Santore Brothers of Garden State Fireworks*

Choreography by Chris Santore

Text of the program notes is available at http://m.princeton.edu/reunions. Fireworks soundtrack simulcast at www.wprb.com
CONCERT PROGRAM

Princeton University Orchestra
Michael Pratt S82, conductor

Fanfare for the Common Man
Aaron Copland

Carnival Overture, Op. 92 (B. 169)
Antonin Dvořák

Violin Concerto in A minor, Op. 53 (B. 108)
Antonin Dvořák

Movement 3 - Finale: Allegro giocoso ma non troppo

The King and I selections
Richard Rodgers/Oscar Hammerstein

Sinfonia Concertante in E-flat major, K. 364 for Violin, Viola, and Orchestra
W.A. Mozart

Movement 1 - Allegro maestoso
Stephanie Liu ’15, Violin and Nathan Wong ’18, Viola

“The Washington Post March”
John Phillip Sousa

“The Stars and Stripes Forever”
John Phillip Sousa

“Old Nassau”
Harlan Peck, Class of 1862/Karl Langlotz

PRINCETON UNIVERSITY ORCHESTRA

The Princeton University Orchestra began with a group of professional musicians from the New York Symphony and Philharmonic Societies who performed a series of concerts at Alexander Hall in 1896. The proceeds were "devoted to the funds for the establishment of a School of Music for the Study of Musical Composition, Theory, and History at Princeton University." Over the ensuing century, the Orchestra has become an almost exclusively student organization, some 100 undergraduate and graduate musicians representing a broad spectrum of academic departments come together for concerts in Richardson Auditorium in Alexander Hall.

Participation in the Orchestra is voluntary and extracurricular, students commit many hours to rehearsal over and above the time required for academic coursework. Graduates of the Orchestra have gone onto be performers, music teachers, and arts administrators, but the comprehensive list of occupations is as diverse as Princeton itself.

Tonight completing 38 years under the direction of Michael Pratt, the Orchestra performs from 10 to 16 times each year both on campus and touring. In 2015, the Orchestra combined forces with the Glee Club and Chamber Choir to perform Verdi’s monumental Requiem to packed houses in Richardson Auditorium. Later this year a documentary tracking the preparation process of the work, including a complete performance, will be posted on http://orchestra.princeton.edu.

The Orchestra serves an important role in Princeton’s Department of Music by both reading and performing new works by graduate students in composition. It collaborates with the Program in Theater (In 2013: Strauss-Molière’s “Le Bourgeois Gentilhomme”), and is also typically called on to perform at special University functions and ceremonies.

The Orchestra has represented Princeton in New York concert halls and on tour across Europe, from Edinburgh to Lisbon, and from London to Prague and Vienna. In January 2015, the Orchestra toured Ireland, performing in Dublin and Belfast. In April 2011 the orchestra joined with the Terrence Blanchard Quintet, performing his Grammy-winning “A Tale of God’s Will (A Requiem for Katrina)” written for Spike Lee’s documentary film “When the Levees Broke: A Requiem in Four Acts.”
A Message from the Fireworks Producer and Choreographer

Welcome to the 2015 Reunions Fireworks. Each year your fireworks team of Dorothy Bedford '78, Executive Producer, and Christopher Santore, Choreographer, work closely to create an exciting, custom show. Here’s some background.

Each winter we consider class reunion themes, and other timely events or anniversaries, to find music for our custom soundtrack. The 2015 Reunions themes ranged from a very current “Game of 00’s” (as in “thrones”) to a traditional “Ten-tucky Derby.” Sometimes a song doesn’t work out, such as “99 Red Balloons” for honoring “Around the World in 80 Ways.”

Starting in the winter, we trade song ideas and build a pool of possible tracks. Sometimes we agree on a perfect clip of music to fit a reunion theme, but it might not work for choreography or won’t fit the program as a whole. Usually, the tempo or dynamics of a rejected piece can’t match the needs of fireworks choreography. We evaluate each selection for length, audience appeal and recognition factor while assuring the integration of the whole into a solid foundation for choreography. A successful soundtrack will have dramatic tone and tempo changes to exploit the vast library of pyrotechnic effects and complex computerized firing systems, and deliver theatrical intensity.

With all that, we are pleased to present five Reunions theme tribute songs, plus a nod to APGA with a clip from “The Imitation Game” (about Princeton PhD Alan Turing); and a notable debut: “The Orange and The Black” performed by the Roaring Twenty.

Once we have a final sound track, Chris Santore, a fourth-generation pyro-technician, goes to work on the choreography to interpret the story embedded in the music. One minute of display time may require between 2-5 hours of choreographic planning. He balances aerial and ground effects, considering colors and sound, size and shape. Listening repeatedly to the soundtrack, he constantly reworks how he imagines the sky illuminating. A state of the art pyro-musical choreography software suite which allows split-second timing of bursts is an essential tool, but ultimately the creative vision first unfolds in the mind’s eye, waiting to be born in the night sky.

Each display is crafted from scratch and takes several hundred hours to produce, lasts between 22-24 minutes, and is only seen once. It is not unlike producing and opening a play for one night only, with no dress rehearsals. The total number of aerial and ground shells we launch: over 5,000.

Sincerely, Dorothy Bedford ’78 and Chris Santore

Notes on the Fireworks Soundtrack and Choreography

I. “Prologue” from Ellis Island: The Dream of America (Peter Boyer, composer). Ellis Island, inspired by the Ellis Island Oral History Project, is popular among regional orchestras. The “Prologue’s” vigorous second theme, described as “traveling music,” pulses with energy. Silver crotale bursts and branch out across the sky, reflecting both the high emotion of the emigrants and their physical dispersion in a new land.

II. The Orange and the Black (C. Mitchell, Class of 1889, arr. E Carter, 1888. Sung by The Roaring Twenty). This traditional Princeton favorite debuts in our custom soundtrack tonight. Orange is a difficult color to produce in fireworks, not often seen, so we use it lavishly. Look for orange peonies and imported Japanese orange strobes.

III. Jump (Van Halen). A “top 100 hit of the ‘80’s,” Jump honors the 35th Reunion “Around the World in ‘80 Ways.” Custom bright laser comets “jump” in the foreground with each note of the famous keyboard riff. Variegated crotale match the bouncy beat. Whistle shells scream through the breakdown before we jump back to the chorus, laced with large peonies.

IV. Stayin’ Alive from Saturday Night Fever (The Bee Gees). With one of the “top ten” tunes in 100 years of cinema (named by A.F.I.), we celebrate the 20th Reunion theme, “Saturday Night Fever/Stayin’ Alive with ‘95.” Multi-colored bees gyrate in the air, conjuring the dance fever. Custom gold flitter streamer eggs invoke the Bee Gees’ multi-layered crackling chrysanthemums.

V. Running Theme from The Imitation Game (Alexandre Desplat, composer). It’s a rare moment when the lead character in a major motion picture is a Princeton graduate alumnus; with this clip we honor APGA. The superb piano score captures both Alan Turing’s “36 drive and frustrations. Glistening white strobing waterfalls flow with the opening scales. Tinsel-like Japanese Gold Strobing diadems shimmer with the flute and cymbal brushes. As the violins crescendo, large magenta and sky-blue umbrella dahlias pop and swell, while an array of white strobing comets fan out in the foreground. More white strobing waterfalls ease us down, as the scene fades to black.

VI. Skull and Crossbones from Pirates of the Caribbean (Badelt/Zimmer). The music of Hans Zimmer, a titan of film score composers, is a perennial favorite of ours. This piece references the Class of 2010’s Fifth Reunion, “X Marks the Spot.” Crackling Dragon Eggs, titanium reports and a rush of crackling comets deliver explosive power to match this exciting high seas battle. Blue mines splash up as ships cut through waves, while a treasure trove of ring shells open in the sky.

VII. Over the Rainbow (Israel Kamakawiwo’ole, “IZ”). This memorable ukulele rendition celebrates the 25th Reunion theme, “This Side of Paradise.” Beautiful cascades of waterfalls evoke a soothing exotic paradise. Bright multi-colored pastel dahlias burst to the first “over the rainbow” lyric. A very rare aerial effect specially ordered for this show, “Blue bees” call out the lyric “blue birds fly.” An rainbow array of arches made of red, orange, yellow, green, blue and purple ground comets close the song.

VIII. Hooked On A Feeling (B.J. Thomas, Blue Swede cover, 1974). This cultural touchstone of the ’70’s hooked new fans with Guardians of the Galaxy’s soundtrack. As chanting fills the air, a series of silver fountains slides skyswards across the ground display: its sparkling curtain embraces us. To match the romantic declaration, red strobe flares flash low while red dahlias break high. Red heart pattern shells punctuate the “love” lyric. Garden State’s custom Red Flashing Loms pepper the sky above as the distinctive chant returns, before heart pattern shells close out the final chorus.

IX. Overture from William Tell (Rossini). The Class of 2005’s “TEN-Tucky Derby” celebration suggested a racing tempo, over the Derby classic “My Old Kentucky Home.” The unforgettable bugle fanfare launches the chase, allegro violins are illuminated by Variegated Fish aerial shells boiling like a stampede. The thundering field enters the backstretch, accompanied by a rousing succession of ground mines. The piece closes with a swell of hundreds of ground comets erupting in a wide fan burst, before loud titanium reports signal the triumphant finish.

X. Pompeii (Basstille). This British band’s album Bad Blood (including “Pompeii”ii) was the top selling digital album of 2013. Gold Flitter Streamer shells, custom manufactured by Garden State, underscore the opening rhythms; a shimmer of sparks hints at the volcano waking. Orange strobe waterfall shells blink with the synthesizer as geologic forces build. Custom bright-red photoflash mortar bursts mark the energetic, syncopated percussion; a rush of red crotale shells pepper the sky as the song climaxes.

XI. Old Nassau (Peck 1886/Langlotz. Tigertones/Tigerlilies & the Princeton University Band). No Princeton gathering is complete without this song.Custom gold flitter streamer eggs invoke the Bee Gees’ multi-layered crackling chrysanthemums immediately pick up the beat. Red Hot flame mortars ignite Bruno’s “too hot” lyrics, before the raging pyrotechnic grand finale concludes the show.

We hope you enjoy the presentation. Please feel free to leave feedback via email to csantore@gardenstatefireworks.com, referencing Princeton.
In 1890, more than 25 years after apprenticing to the Italian king’s master fireworker, Augustine Santore opened his first fireworks plant in New Jersey. The Santore family continues to supervise fireworks construction at their company, Garden State Fireworks (GSF).

The Santore brothers are renowned for their Italian style, multi-break “exhibition” shells. They are now also major producers of stage pyrotechnics, quick-match fuses, exhibition candles, and set piece materials. They are major suppliers to many other display firms, including the Disney organization, today the world’s largest consumer of fireworks. In 1985 the Santores added a new dimension to the fireworks world: a pyrotechnics display perfectly choreographed to a musical score, which soon became a cornerstone of the Santore’s world-class productions. In 2006 computer-based synchronization arrived. Most recently GSF has become known for close-proximity effects used in stadiums and on concert stages.

**FIREWORKS GLOSSARY**

**Aerial Display Shells:** Aerial display shells range in diameter from 3” to 12”. Their timed fuses dictates when (how high) the shell will explode after ignition. These “rise times” are integral to the basic principle of musically choreographed displays. The shells can be combined in many ways for an endless variation in sound and light effects.

**Bees:** This shell opens softly; the large-ish stars “swarm” asymmetrically and randomly.

**Chrysanthemum:** A spherical shell in all colors, color combinations, and sizes; can be layered (doubles, etc.). The stars have glowing tails. Compare Peony.

**Comet:** A spherical shell similar to a Peony’s tail-less stars, but stars are brighter and cleaner.

**Crosssette:** A spherical shell, similar to a Peony’s tail-less stars, but stars are larger and brighter.

**Fish:** Barely pops; a dense school of tiny stars wriggles asymmetrically but straight.

**Flash Salute (Titanium Salute):** The big noise-maker, fast, compact, and bright with a thunderous boom. Titanium salutes include gold sparks.

**Golden Wave Swimmer:** Opens hot, fast & round, then the big stars zoom randomly.

**Palm Tree:** A burst of short-duration aerial Comets in white or gold, resembling palm fronds. Combines with other shells to make tree trunks or flower pistils.

**Pattern Shell:** Specific shapes, such as a ring, heart, or star. Sometimes, the shell burst distorts the pattern. Also, because this shell explodes on a single plane, it is only properly viewed from certain angles. Hint: Look for a possible buttercup.

**Peony:** A spherical shell available in all colors, sizes, combinations and multiple layers. A Peony’s stars are tail-less; they explode as points of light, often changing color. See Chrysanthemum.

**Roundel:** A ring or cluster of small, colored Salutes (maroons), which burst simultaneously. Compare Sitemap.

**Screamer:** A screaming effect whizzing away from the burst.

**Serpents:** Spinners of white or gold twirling across the sky.

**Shell of shells:** Contains internal shells, which produce secondary bursts.

**Sitemap:** A ring or cluster of small colored Salutes (maroons), bursting in sequence. Compare Roundel.

**Spider:** Much shorter in duration and size than Weeping Willow; fewer stars with narrow, glowing, falling tails of goldish-orange (a charcoal effect).

**Strobe:** Cluster bursts of yellow, white, green, or red rapidly blinking on and off.

**Whistles:** Similar to Serpents, but the spinners whistle loudly.

**Waterfall:** A soft-breaking, narrow stream of bright white or golden glitter raining down. Compare the broad weeping willow, or the narrower, orange Spiders.

**Weeping Willow:** Willows vary, but all share the long-dripping stars of silver or gold falling almost to the ground, AKA brocade. Diadems or Crowns are weeping rings.

**Ground Displays:** A ground display includes two main types: stationary “set pieces” such as a spinning wheel or frames of a specific image in fire; and ground-to-air effects such as traditional Roman candles. Ground displays or “fronts” are crucial to any musically choreographed show, as they allow for dramatic up-close interpretations of the music. The effects are instantaneous and work well to emphasize beats and set a mood.

**Exhibition candles:** Large Roman candles that send a range of colors or glitters in repeating fashion. Used from multiple locations to create unique tapestries.

**Mine:** A sudden explosion of many colored stars used to either emphasize a beat or create a wall of color in a startling fashion. If aerial, known as a star mine.

**Flame Mortar:** A quick red or green flame emitting from the ground (used on stages)

**Cake:** A repeater sending up multiple effects. The variety of this display is endless, including all effects seen in aerial display shells in smaller versions.

**Comet:** A giant tail leaves a broad trail of gold or silver. Variations include a split comet (spits into pieces at its apex) or the tiger tail (whose narrow spiral gives a striped effect).

**Dedication**

For my wife, Kelly. You are never second. C.S.

For Charlie Krank ‘74 and Al Pearson -- Thanks for the memories. D.B.

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**MEDICAL SERVICE**

Princeton Reunions activities enjoy a large attendance, and medical emergencies both large and small can be expected. If you or a companion need assistance for a bee sting, cardiac symptoms, or anything in between, medical help is available. For the Lawn Concert and Fireworks at Finney Field, emergency aid workers are stationed at the following locations marked by red cross signs: Princeton Stadium (north plaza) and FitzRandolph Road Gate (opposite side of field). If you experience any discomfort during or after the presentation, emergency workers are ready to assist you.

First aid services are provided by Princeton First Aid and Rescue Squad.

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