

MONDAY, MAY 16, 2016

ONE HUNDRED AND SECOND COMMENCEMENT

REED COLLEGE

The Program

PROCESSIONAL*

WELCOME

Roger M. Perlmutter '73, Chairman, Board of Trustees

REED COLLEGIUM MUSICUM

Two *Chorlieder*Nachtwache I, Op. 104/1
Nachtwache II, Op. 104/2
Johannes Brahms (1833–1897)

INTRODUCTORY REMARKS

John R. Kroger, President

ADDRESS

Laleh Khadivi '98

CONFERRING OF THE DEGREE OF BACHELOR OF ARTS

John R. Kroger, President

CONFERRING OF THE DEGREE OF MASTER OF ARTS IN LIBERAL STUDIES

John R. Kroger, President

RECESSIONAL*

MARSHALS

Commencement Marshal

Jeffrey Parker, George Hay Professor of Economics

Student Marshals

Arthur Glasfeld, Amgen-Perlmutter Professor of Chemistry Virginia Hancock '62, Professor of Music

Faculty Marshals

Kathryn Oleson, Professor of Psychology and Director of the Center for Teaching and Learning Margot Minardi, Associate Professor of History & Humanities

Please remain in place during the recessional until the faculty and class of 2016 have left the tent. Sign language interpretation is provided by Access Services Northwest. Our bagpiper is Ogden Kimberly. Graduates and guests are invited to a reception after the ceremony in the Gray Campus Center Quad.

^{*} The audience is requested to rise for the processional and recessional.

Laleh Khadivi '98

Laleh Khadivi is an award-winning novelist, journalist, and documentary filmmaker. She is the winner of the Whiting Award for Fiction, the Barnes and Noble Discover New Writers Award, and an Emory Fiction Fellowship for her debut novel, *The Age of Orphans*. Khadivi is also the recipient of a 2016 National Endowment for the Arts Grant and a 2016 Pushcart Prize for her story "Wanderlust." Her fiction and nonfiction can be found in the *Los Angeles Times*, the *San Francisco Chronicle*, *Virginia Quarterly Review*, the *Sun*, and other publications.

Khadivi was a child when her Kurdish family immigrated to the United States from Iran in 1979, shortly after the Iranian Revolution, and her fiction explores characters beset by cultural alienation. Her first novel in a planned trilogy, *The Age of Orphans*, is the story of a Kurdish boy whose father is killed in a battle with the Iranian army in 1921. The boy is captured, becomes a soldier and eventually is turned into an oppressor of his own people. The *New York Times* said of the second book in the trilogy, *The Walking*, that "the precision of Khadivi's sentences, each with a gentle rhythm and a sure-footed intelligence, engenders deep sympathy for the miseries experienced by forced migrants."

Her debut documentary film 900 Women brings viewers into the Louisiana Correctional Institute to share the frustrations and hopes of women incarcerated among the state's most dangerous female prisoners. Khadivi interviews a grandmother, young high school student, pregnant woman, recovering heroin addict, prison guard, and the only woman on death row. The women share their stories of life on the streets, abuse, freedom, childbirth, and motherhood. The film, produced by Academy Award—nominated filmmaker Jonathan Stack, premiered at the Human Rights Watch Film Festival and aired on the A&E network.

Khadivi graduated from Reed in 1998 with a Bachelor of Arts in International Comparative Policy Studies. She graduated from Mills College in 2006 with a Master of Fine Arts in fiction. She has taught creative writing at Santa Clara University and University of Wisconsin at Madison; she taught at Emory University as a Fiction Fellow. Khadivi recently accepted a permanent position in the Master of Fine Arts program at the University of San Francisco.

Music by Columbia Brass

Greg Garrett & Craig Gibson, trumpets William Stalnaker III, horn David Bryan & Jack Quinby, trombones

PRELUDE

Overture, Sicilienne, and La Rejouissance from *Music for the Royal Fireworks* G.F. Handel (1685–1759)

Souvenir de la Havane Louis Moreau Gottschalk (1829–1869)

Hail Columbia, Lilly Lee, Maggie by my Side from *American Brass Band Journal* G.W.E. Friedrich (1821–1882)

PROCESSIONAL

March Imperial William Holcombe (1924–2010)

RECESSIONAL

Trumpet Voluntary John Stanley (1712–1786)

Collegium Musicum

VIRGINIA HANCOCK '62

Professor of Music, Director

Soprano

Emily Curtis '16
Rachel Gosselin '19
Alicia King

Ellery Sloane-Barton '18

Alto I

Miriam Gölz '16 Sydney Lewis '18 Yiyang Wang '18

Alto II

Christfriede Larson Katherine Newton '16 Jasmine Williams '17

Tenor

Tanmay Dubey '18 Reed Elkinton '16 Joshua Gancher '16

Bass I

Nico Terry '17 Michael Taylor

Bass II

Mark Burford Jack Johnson '15 Peter Rhodin '19

Two Chorlieder

Nachtwache I, Op. 104/1 Nachtwache II, Op. 104/2 Johannes Brahms (1833–1897)

The Chorlieder Op. 104 (published in 1890) were Brahms's last works in the genre of the secular a cappella choral song, one in which he had produced some of the nineteenth century's outstanding repertoire. In these two settings of poems by Friedrich Rückert, the six voices are used in an unusual arrangement that doubles the alto and bass parts. The first has dense, chromatic harmonies that reinforce the impression of uncertainty expressed by the text. The second includes horn calls in perfect fourths, the gentle sibilants of the angels' whispering voices, and the diatonic confidence of its final glorious cadence. In its brief course, this song encompasses a world of doubt, experience, and hope that was surely possible only for the fully mature Brahms.

Nachtwache I

Leise Töne der Brust, geweckt vom Odem der Liebe, Hauchet zitternd hinaus, ob sich euch öffn' ein Ohr, Öffn' ein liebendes Herz, und wenn sich keines euch öffnet, Trag' ein Nachtwind euch seufzend in meines zurück.

Nachtwache II

Ruhn sie? rufet das Horn des Wächters drüben aus Westen, Und aus Osten das Horn rufet entgegen: Sie ruhn! Hörst du, zagendes Herz, die flüsternden Stimmen der Engel? Lösche die Lampe getrost, hülle in Frieden dich ein.

Night Watch I

Soft notes of the heart, awakened by the breath of love, whisper forth tremulously if an ear or loving heart should open to you; and should none open, let a night wind bear you back, sighing, to mine.

Night Watch II

Do they rest? The watchman's horn calls from the west, and from the east the horn calls back, "They rest!"

Do you hear, fearful heart, the angels' whispering voices?

Put out your lamp confidently, and let peace envelop you.

Graduating seniors are listed alphabetically under each of Reed's five academic divisions, followed by interdisciplinary majors that cross the divisions, and master's graduates. The listing includes the academic department in which the student majored, and any concentration within that major (noted by a colon). The title of the student's thesis is listed, except for students who completed one of Reed's combined degree programs in place of the thesis year at Reed.

The Arts

ALEXANDRA MARIE ALDERSLEY

Art

John Marin: Making Sense of Place

WOLFGANG MAXIMILIAN FAFNER JOHNSON BLACK

Music

Community, Infrastructure, and the Internet in Portland Hip-Hop

ADRIAN ALEXANDER BOCTOR

Music

Hiding in the Spotlight

KAITLYN BEATA BRYAN

Art

Happy Island: Artistic Responses to Fukushima Re-mediations on Superflat and Japan's Post-Bubble Society

ABIGAIL EMIKO COX

Art

Forcasting Cascadia: Metabolic Architecture and Climate Change

CYLVIA JEAN MICHELLE DAVIS

Art

Poetry and Form in Visual Practice

CHRISTOPHER DRELICH

Art

The Uruk vase

LAURENT AKIYOSHI DRUI

Theatre

Call to Me: An Analysis of Voice Acting in Context and Practice

NICHOLAS REED ELKINTON

Music

Historical, Analytical, and Performative Perspectives on Maurice Ravel's *Le tombeau de Couperin*

HENRY MARTIN GERBA

Art

The Ecological Approach to Videogame Perception

MOIRA BAILEY HICKS

Δrt

Princess Trouble: A Way of Seeing Women in Medievalism

MARISSA LENA KATZ

Art

Open Me, Close Me

EUGENE Y LEE

Music

Articulating "Japanese" Voice in Vocaloid: Identity in the Wagakki Band's "Senbonzakura"

ALESSANDRA SUMIKO NIIMI LEITMANN

Δrt

A utopia for you and me and no one else: an analysis of *Yokohama-e* woodblock prints at the end of the Edo period

HANNAH ZIESSEL MACKENZIE-MARGULIES

Dance-Music

Where's Leon? [or] That Extraordinary Drama: Dancing Jazz, Negotiating Historiography, and Performing Americanism on the Cold War Cultural Tours

MARGARET HARRIS MACLEAN

Art

Calm the Fuck Down and Cheer the Fuck Up: Art Therapy for Anxiety and Depression

PALOMA BORROMEO MARTINEZ-MIRANDA

Art

Of Spaces: Colonial Traumas and Constructing Identity in Post-Colonial Philippines

NITA ROSE MCDANIEL

Δrt

Pattern and Break: Divergent Historicisms of Watts '65

CAMILA MEDINA MORA

Δrt

Both/Neither

FRANCESCA MARY MICHEL

Δrt

Periodizing Spectacular Entertainment in *La Dolce Vita* and *The Great Beauty*

JADE MARA NOVARINO

Art

Making Space: JUST LIKE | FREE MANICURES | Hola Pa, Yellow gel pen | Jonathan Hartshorn at Conduit

GRACE JACQUELINE POETZINGER

Art-Dance

A Performance of Ritual Invention

ZOE LEIGH ROSENFELD

Theatre

"Things Weren't Just Things After That": An analysis of transgressive touch in the plays of Naomi Wallace

KEVIN JAMES SNYDER

Theatre

The Ecological Niche of Theater in Collective Liberation

ALEXANDER D. SWANN

Theatre

Sound Design: A Systems Approach

CHLOE MADELEINE TRUONG-JONES

Art

Privacy, Legitimation and the Secret of Transaction

MIA ISABELLA URIBE KOZLOVSKY

Art

Satisfied Desire: How Two Collections Shape the Memory of Frida Kahlo

LUCY S WEISNER

Δrt

De(homo)sexualizing Germany: A Study of *Triumph of the Will* and Homosexual Politics

FIONA TUREY WIEDERMANN

Theatre

Who Lives, Who Dies, Who Tells Your Story: Racial Transcendence and Racial Transgression in the American Musical

NICHOLAS ZHU

Art

A Failed Performance and Demonstration of the Interpersonal and Sensory

History & Social Sciences

OMAR IHAB ALHASHANI

Political Science

Imaging the Islamic State: A Study of Style, Creative Autonomy, and the Internet's Role in Jihadi Media Production

NATALIE MARGARET ALLEN

Anthropology

#snowball

Performances of Climate Change Denial within the United States Senate Committee on Environment and Public Works

ELAINE MARIE ANDERSEN

Political Science Thinking About Thought Thinking Itself: Hegel and Freud on Mind

EVANGELINE ROSE ARCHIBALD SHULMAN

Sociology

Discrimination in Dialogue The Development of Anti-Harassment Policies within American Universities and Colleges

DELALI ABENA AYIVOR

Anthropology

Displaying Pain, Creating
Publics, Saving Lives: Affect,
Empowerment and the
Postcolonial Gaze in *The Maternal*Health Channel Ghana

BENJAMIN MYLES BAKER

Economics

Smart Cooperatives: Advanced Metering Infrastructure Adoption in Electric Utilities

SOPHIA ISABEL BARBA

Anthropology

Deconstructing Citizenship: Migrant Labor, Immigration Policy, and Race in American

MICHAEL ALAN BERNARD

Economics

Property Tax Law Implications on Urban Renewal Outcomes: A Case Study of Portland

GALEN MACLEOD BLAIR

Economics

Hedonistic Effects of Bicycle Paths on Housing Prices in Portland, OR

MELISSA KATHRYN BOETTNER

History

Sacramento City, 1848–1853: "The disordered elements of a town, thrown together in California haste"

CRISTINA NICOLE CAMBIANICA

Sociology

The Military and Mobility: Racial Differences in Military Occupation Specialties and Life Course Earnings

BRIAN HANSMAN CLICK

History

"We Are an Endangered Species": Labor, Land, and the Decline of the Pacific Northwest Lumber Communities

NICOLE LAUREN COHEN

Anthropology

Free In Vitro Fertilization For All: Pronatalist Policy, New Reproductive Technologies, and Unequal Citizenship in Israel

KASSIDY NICOLE CORNELISON

Economics

Globalization and the Gender Wage Gap in China

BRIAN ALEXANDER CRUSH

History

The United States Information Agency and the State-Private Production of Propaganda: 1953–1965

JAMES HAROLD CURRY

Anthropology

In Whose Terms?: Difference, Similarity, and Prosthesis in the Encounter Between the *Stenella Frontalis* and the Wild Dolphin Project

EMMA IRENE CYTRYNBAUM

Political Science

Hegemony and Feminist Strategy

OLIVIA CHARLOTTE DAWSON

Sociology

Following the Scent of Turpentine: The Pearl's Art Galleries and Interactions with Re-Development

OSHIN CONNOR DIAZ

History

Heretic's Feast to Utilitarian Diet A History of Vegetarian Rationales in the West

KEVIN WILLIAM DILL

Political Science

The Securitized Subject: Identity and Power at the TSA Checkpoint

ELSPETH BRYN DRAYTON

Anthropology

The "Wisdom" of Dominant Discourses: A Study on the Ambiguous Status of Woman in Moroccan Proverbs

EMMANUEL NWACHUKWU ENEMCHUKWU

Economics

The Impacts of Physical Disabilities on Labor Market Outcomes (A Tanzanian Case Study)

SETH ALEXANDER EYRING

Anthropology

AIDS Among Drug Users in the United States: Barriers to Hearing Voices of the Continuing Epidemic

NICHOLAS CARMELO FIORE

Economics

Do Currency Unions Increase Trade or Can Trade Increases Be Explained by Close Ties?

REBECCA LEIGH GARRY

History

"Satan Vomited Up a Set of Reptiles:" Men, Midwives, Medicine, and the Monopolization of American Childbirth—1800–1900

RACHEL MIRANDA GROSSMAN

Economics

Is Bitcoin Money? A Theoretical Study of Bitcoin as Money and Empirical Analysis of Bitcoin Pricing

TANNER CHRISTOPHER HANSON

History

Jung, Wild and Free: Carl Jung's Critique of Technological Modernity

ALEXANDER KIMBALL HARRIS

Political Science

"You're Sexy! You're Cute! Take Off Your Riot Suit!": The Coevolution of Protest and Police Tactics at Occupy Portland.

LUCAS MONTGOMERY HILL

Economics

Bubbles, Booms, and Busts: What's a Regulator to do?

KAREN MARGARET HOFFMAN

History

Manufacturing Marginalization: How Systemic Racism Launched the Rise and Fall of the Nation's Largest Wartime Housing Project

DANIEL PRESTON HOPE

Economics

Mix & Match: Workplace Tournament Hybrid Awards for the Modern Era

JORDAN THOMAS JACKSON

Political Science

Forfeiting Responsibility: Law Enforcement, Congress, and the Battles over Asset Forfeiture

KAITLYN RENEE JACKSON

Sociology

New choices in primary care: A statistical analysis of urgent care patients

KATHERINE LOUISE JOHNSON

Anthropology

Televising Truth and Reconciliation: Mass Mediation of Irreconcilable Publics in the South African Broadcasting Corporation's Special Report

OLIVIA LYNN KILGORE

Sociology

Media portrayal of protesters in Ferguson after the death of Michael Brown: A Comparison of Local and National Newspapers, August 9, 2014–December 31, 2014

ALEXANDER JOHN KRAFCIK

History

Creative License: Community, Technology, and Art in Japan's Interwar Camera Industry

DANIEL BURTON KUGLER

History

Staffing the Nation: Congressional Secretaries and the Professionalization of American Politics, 1886–1946

THEODORE ALLEN LANDSMAN

Political Science

Oregon Ballot Measures, 1902 to 2014: What Makes a Ballot Measure Succeed?

ANDREA WEI LIN LIM

Economics

Worth its Weight in Gold? How Legalization Affects the Price of Marijuana

DYLAN JAMES LOWY

History

Foul Trouble: Media Representations of Black NBA Athletes

CRISTOBAL ABEL MANCILLAS

Political Science Collective Clientelism and Democratic Success

MEREDITH LEE MATHIS

Anthropology

Acting on Vanishing Grounds: The American Indian Movement and the Self-Preserving Logics of U.S. State Sovereignty 1968–1974

TALIESIN MYRDDIN NAMKAI-MECHE

Economics

Estimating Cross-price Elasticities of Demand for Natural Gas and Electricity: A Disaggregated Study

MAHA ASHRAF PASHA

Economics Combined Program, Columbia University

STEPHANIE SAGE RADOSLOVICH

Economics

Correlates of Readmission in California Parturients

BRANDON KYLE ROSS

Political Science

Race and Politics: A discussion of why Americans love the idea of racial equality, but hate affirmative action

SYDNEY ELIZABETH SCARLATA

Political Science

One Size Fits All? A Study of Economic Statecraft's Starring Role in American Foreign Policy

KATIE GABRIELLE SCHMITZ

History

Violent Travels: White Women Explorers and the Work of Empire

OLIVER SILVERTON-PEEL

Political Science

Liberalizing Violence: How Mexico's Democratic Transition Deregulated Drug Trafficking Organizations

ZEUS HARRISON SMITH

Political Science

The Flow of Technology: International Transfer of Efficient Water Technology and Policy and its Role in Combatting Water Scarcity

ISAAC SUAREZ-NUGENT

History

Tribalizing Iraq: How British views of Arab Society Shaped the Government of the Iraqi Mandate

TYLER MADISON THOMPSON

Political Science

No Bold, No Foul: An Analysis of Naming & Shaming and Detainee Abuse Prevention in the Iraq War, 2003–2008

JOHN RUSSELL TRAUTLEIN

Political Science Ideological Shifts and Congressional Leadership

REBECCA LYNNE TURLEY

History

Humble Peasant or Idle Rogue?: An Analysis of Sixteenth-Century Welfare Reform in English Communities

DYLAN DOSTAL VAUGHN

Economics

Demographics and State-level Economic Growth

JUSTINE LIH-HUEY WANG

Economics

Toward an Open Innovation Regime: Knowledge-Sharing for Economic Growth

CHRISTOPHER JON WARDEN

Anthropology

Tracing Settler-Colonial Violence on the Navajo Reservation: 1863–1935

RICHARD TAYLOR WILLIAMSON

History

The Movers of Jingdezhen

QINGYANG XIE

Anthropology

Regulating Public Memories through Spatial Changes: Earthquake Reconstruction and Tourism Development in Dujiangyan, Sichuan, Southwest China

Literature & Languages

SABINE MAREN BISCHOFBERGER

Russian

On the Shores of the Ionian Sea: A Translation

BAILEY ROSE BOATSMAN

Classics

Sticking it to the Men: Transgressive Women on the Greek Tragic Stage

ZAHRA BOOTH

English

"it's words, unprintable but the tune, irresistible:" Continuity Subversion and Creation in Mumbo Jumbo

ALEXANDER WARREN PEI CHAO

German

Taking the Public for a Walk: Publics Unleashed in the Work of Christoph Schlingensief

IAN CODY CONNELLY

Chinese

Remembering the Folk: Visibility and Bearing Witness in the Folk Memory Project

LAUREN ALYSSA COOPER

English

The Key to Rebecca: Genre, Gender, and the Question of Heroism in *Ivanhoe*

HENRY DREW CORDES

English

Frisco

MAX LEVY DIAMOND

English

The Programatic Approach to Interpretation

YELENA JEANNE EREZ

Classics

It's the Thought that Counts: Living in Accordance with Reason In Stoic Philosophy

GRACE BROWNING FETTERMAN

English

Father Welsh. Walsh. Welsh.: Character Confronting Caricature in the Dramatic Work of Martin McDonagh

AARON FINSRUD

Chinese

Alienation and Conceptions of Self: A Close Reading of Three of Bai Xianyong's Short Stories

SAGE ALEXANDRA FREEBURG

English

Rotations

HANNAH HUA YING FUNG-WIENER

English

Sounding Lines

ROMAN MICHAEL GARCIA

German

Perspective in the Interpretation of Franz Kafka's *Die Verwandlung*

JULIE LAURA GOURINCHAS

English

Homo Puellae Lupus (Man is a Wolf to Girl): Mapping the cultural influence of Nabokov's Lolita on the child-woman myth

LILY DOLORES HARRIS

English

"A Uo Penn Byt Pont": The Politics of Magical Transformation in the Four Branches of the Mabinogi

BENJAMIN FRANCIS HEMENWAY

English

"The outer turmoil's veil": an Analysis of Samuel Beckett's *Novellas*

KASIE NICOLE HENDERSON

English

The Almost Nameless Contour: Space and Place in Modern and Contemporary Poetry

ERIC CHEN PEI HO

English

The Once and Future Chivalry: The Emergence of the Individual from Arthurian Legend

ERIKA E. HURTH

English

Zen, Jung, and the Poetics of John Cage

GEORGE WALTER JOHNSON

Classics

Medicine in the *Iliad*

LUOMENG HELEN LIU

English

The Motif of Flowers in "Penelope" of *Ulysses* and "The Song of Burying the Fallen Flowers" in *The Dream of the Red Mansion*

ANYA ELIZABETH LOGAN

Classics

The Honeyed Cup: Lucretius's Use of Myth

HANNAH LOGAN LOONEY

French

Chambres Parées: Poésies Intimes d'Apollinaire et d'Éluard

CHLOE CONCETTA MARGHERITA

English

Connecting through the Unknown: Reading the Epistemology of Alterity in David Foster Wallace, Jorge Luis Borges and Italo Calvino

NATHAN JAMES MARTIN

English

Jimmy Corrigenda: Correction and Failure in a Great American Graphic Novel

ALEX JOSEPH MCGRATH

Classics

Gangsta's Paradise Popular Politics and Gang Violence in the Late Roman Republic (63–52 BCE)

ISABEL MCCURRACH MEIGS

Russian

Gorenshtein in Berdichev: Finding the Mundane in the Meaningful

LAUREN LOLLIE NELSON

English

"The sweet snare of the flesh": Carnivalesque catharsis in Claude McKay's Banana Bottom

PERRY KATHARINE NELSON

English

"The Theory of Narrative Causality": Metafiction and Carnival Humor in Terry Pratchett's Withces Abroad and Guards! Guards!

ORLA ANN O'SULLIVAN

Russian

Nostalgia Deferred

BRITTANY LAUREN OHRT

English

Friends and Flying Death: Dragons in *The Hobbit* and *Dragonflight*

STERLING SANDER OLSON

English

Waning Towers: Problems of Monarchy and Chivalry in Fourteenth Century English Poetry

ANNE ASTRID OSENBAUGH

English

Two Kings and a Governess: Death, Feminism, and Classical Underworld in *Jane Eyre*

WARREN JAMES PETERSON

Classics

Omens and Intertexts: interpreting signs and language in the οἰωνοςκοπικά

INDIA ROSE RAGSDALE

English

Illuminating the Ineffable: Metafiction and Magical Realism in *Everything is Illuminated*

SYLVIA CHASE RANDALL-MUNOZ

English

Clarissa Dalloway as the Flâneuse: An Exploration of the Female Sphere within the Postwar Metropolis

JORGE ALEJANDRO RODRIGUEZ SOLORZANO

French LA SÉANCE HÉTÉROGÈNE

DAVID ANTONIO SATTEN-LOPEZ

English Book2

MARIN SOQUELLE SKLAN

English

The Book of Giving

EDMOND ROSE SOUN

Russian

The Absolute from Nothing: Vladimir Korbin's Film Art

ARISTOMENES DEMETRIOS SPANOS

General Literature

A Battle With Meanings: The Subversion of Verbal Referentiality in The Prose of Daniil Kharms

HALEY JEAN TILT

Classics

Living and Dying Young: Conceptions of Child Development in Africa Proconsularis

CHARLIE CLARENCE WILCOX

English

Overwriting Experience: The Social and The Textual in the American Academic Novel

JOSEPH MEYER WINITSKY

Chinese

Gender in the Jianghu: transgressive gender performance in wuxia cinema

RYAN CHRISTOPHER WRIGHT

English

Ludic Hermeneutics: Interpretation as Play in Shakespeare's As You Like It and Jonathan Blow's Braid

GABRIEL LUCAS ZINN

English

Writing Eros: Utterance and Desire in James Joyce's A Portrait of the Artist as a Young Man and Ulysses

Mathematics & Natural Sciences

ABRAR ALI ABIDI

Physics

Quantifying Cellular Mechanotransduction in Morphogenesis and Cancer

NEENAH CORINNE AGUIRRE-WONG

Biology

The Effects of Retinoic Acid on Neurogenic Genes Upstream of atoh7 in Danio rerio

JOOHEE BANG

Chemistry

Pulsed Nd: YAG Laser Raman Spectroscopy and Normal Coordinate Analysis of Trivalent Bismuth Complexes

LILY BEN-AVI

Biology

Sink or *fim*: Regulation of the fim operon by PerC in Enteropathogenic *Escherichia coli*

CARLO CLINTON BERTI

Chemistry

Elucidating the Water Reducing Mechanism of bis-2-Mercaptopyridine-N-Oxide Nickel(II) as a Model for the Design of Next Generation Water Reducing Catalysts.

EMILY BECK BINFORD

Biology

The Effects of Reduced Impact Logging On Biodiversity in Tropical Forests: A Meta-Analysis and Qualitative Review

LIAM JON BOWCOCK

Mathematics: Statistics Aggregating Over Ordinal Scales Using the Sugeno Integral

LEAH CATHERINE STONIC CEPKO

Biology

The Age of Phage

AARON SAMUEL CHOLDEN-BROWN

Physics

Issues with First Quantization Quantum Mechanics on Curved Space-Times

SOFIA-MARI HUGHES CLAESSON

Biochemistry and Molecular Biology

Determination of BosR DNA Binding Sequence Using CASTing Method

MARI SHIRATORI COBB

Biology

The Role of Actin-Microtubule Cross-Linking in Cell Migration

AMELIAH RAINE COOPER

Biology

A Gene By Any Other Name: Reevaluating Gene Annotation in *Astatotilapia burtoni*

JEREMY MARK COSEL

Mathematics: Computer Science Clean Up After Yourself: Implementing Garbage Collection

ALEXANDER DAVID DEICH

Physics

Particle Dynamics in a Time-Dependent Kerr Geometry

TIMOTEO IAN DELGADO-ESBENSHADE

Mathematics-Physics Bound Orbits in Classical Electrodynamics

HANNA DÖRNHOFER

Biology

From feces to families: Genotyping beavers in the Reed Canyon

NATHAN BARNES DUNCAN

Mathematics

Heart of Zero-Knowledge

ZACKARY OKUN DUNIVIN

Biology

Quantification of the Spatiotemporal Patterning of *atoh7* Expression in the Developing Zebrafish Retina

AJIT ELHANCE

Biochemistry and Molecular Biology

Cross-Species Inhibition of Telomerase by PinX1

ANDREW THOMAS ERLANGER

Mathematics

Dehn Surgery

NICOLE ALEXANDRA EZELL

Biology

Reconstructing Neuronal Signaling Pathways With the Potential for Disruption in Schizophrenia

JEAN MUNYO FREY-EDWARDS

Mathematics

M-matrices and Chip-Firing

WALTER ACE FURMAN

Physics

Electromagnetically Induced Transparency: The Zeeman Method

JOSHUA RALPH GANCHER

Mathematics

Fully Homomorphic Encryption

NAOMI VARDA GENDLER

Physics

Dark Matter Corrections to the Anomalous Magnetic Moment of the Muon

ROBERT TREAT HAAS

Biology

Holocene Extinction: The next "Mayan Calendar" Apocalypse?

JULIAN ADAM HAFT

Mathematics

M. Stone's Embedding Theorem for Boolean Lattices

NICHOLAS COOMBS HANSON

Chemistry

Spinosad Analysis of Apples in the Pacific Northwest

ALYSSA KAY HARRISON

Biochemistry and Molecular Biology

Reaction Screening and Optimization for Use in a Bismuth-(III) Asymmetric Counterion Directed Catalysis System

JOSHUA AARON HEPWORTH

Mathematics: Computer Science The States of Splendor: Searching Game Trees with Partial Information

ETHAN NERVIK HO

Biochemistry and Molecular Biology

Spectroscopic Analysis of the CusCFBA Copper Exporter in *Escherichia coli*

WILLIAM JOHN HOLDHUSEN

Mathematics-Physics First Quantization of the Radiation Reaction Force

ALEXANDER JAMES JIMENEZ

Mathematics

The Borel isomorphism theorem

JOSEPH JOE

Mathematics-Physics 256 Shades of Grey: Topological Analysis of the Gray-Scott Model Using Persistence Landscapes

WILL JONES

Mathematics: Statistics Multilevel Models and Missing Data Models for Crowdsourced Bicycle Route Ratings

ISABELLA F JORISSEN

Mathematics: Computer Science Tiling the Heavens In special cases where 'the Heavens' is $\mathbb{R}2$

MARA ELIZABETH KAISER

Biology

Correlating Hormones and Behavior in the Cycle of the Mouthbrooding Cichlid, Astatotilapia burtoni

MAKOTO MICHAEL HARADA KELP

Chemistry

Tropospheric Particle Formation in Forests: Global Modeling of Secondary Organic Aerosol Production from Reaction of NO₃ Radical with Speciated Monoterpenes

MASON ALEXANDER KENNON

Biology

Ontogeny of arginine-vasotocin signaling in two teleost species: Astatotilapia burtoni and Danio rerio

SIERRA AMY LAVOY

Biology

Xenopus laevis vocalization as in vivo model for the exploration of off-target effects of mefloquine in the central nervous system

GREGORY ALEXANDER LEDGER

Mathematics: Computer Science Implementing Component-Based Garbled Circuits

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A Note on the Beginnings of Reed College & Commencement

In the late 1800s, the Reverend Thomas Lamb Eliot suggested to two of his parishioners, Oregon pioneers Simeon and Amanda Reed, that they use their wealth for the betterment of society. He urged them to found "a Reed Institute of lectures and arts and music and museum." In 1908, with contributions from Simeon and Amanda's estate after their deaths, a board of trustees led by Eliot established the Reed Institute in Portland, Oregon.

Reed College began its first classes in 1911 with 50 students—26 men and 24 women—and 15 faculty members. As an innovative experiment to restore relevancy to the liberal arts in an age dominated by science and industry, Reed sought neither the size and specialization of the university nor the intercollegiate athletics and elaborate social life that had become standard at many private colleges.

Under the inspiration and guidance of Reed's founding president, William Trufant Foster, the college set out to build a democratic community without regard for nationality, gender, religion, race, or class. No fundamental distinctions were made between students and faculty in what was called "the quest for truth." Students were expected to do original work in a major subject area—the senior thesis. A principle of honor governed all aspects of campus life.

Reed held its first commencement ceremony in 1915, for which President Foster conferred degrees on the back steps of Eliot Hall. In the last few decades, the college has usually invited a notable graduate to give the commencement address; recent alumni commencement addresses have been given by Kathleen Saadat '74, Igor Vamos '90, Jennifer Ferenstein '88, Robert Smith '89, Larry Sanger '91, and Michelle Nijhuis '96.

For over a hundred years Reed has remained steadfast in its belief in the intrinsic value of rigorous scholarship, the joy of serious intellectual pursuit, and the essential role of community in the development of knowledge.

A Note on Academic Regalia

Academic regalia worn at commencement reveal different types of academic achievement through the use of different styles and colors of gowns and hoods. The bachelor's gown has a long, pointed sleeve; the master's is a long closed sleeve with a slit at the elbow; and the doctor's is a very full, bell-shaped sleeve with the bands matching the color of the gown opening. The hoods are lined in the official color of the institution that conferred the degree, although the bachelor's hood is rarely used. The colored velvet binding in the hoods indicates the academic area in which the degree was earned—white for liberal arts, yellow for science, purple for law, red for theology, green for medicine, and blue for philosophy.