

?jY\mYlf\_; d'kk'g^\*(\*)

?jY\mYI] '9oYj\k

A ljg\m[ l'af k'Yf\ 'Hjge gl'af k

J m'q'@gf] '>] d'ok` a'J ] [ a'f l'2K] j] fY'< a] gfYj\g

< a'lf \_m' ] \ 'Hjg' ] kkg E Yjc'9Z d'o ar ) (

\*( \*\* 'M&F ] ok' t' Ogd' J ] hgjl '?jY\mYI] 'Hjg\_jYe 'J Yf'cf\_k ))

; g' ] 'g^'9jIk' t' 'K[ a'f [] k' =e h'gq] ] 'g^' ] 'Q] Yj2E Yjq'> ] f l] kk ))

; ge hmYl'af YdK[ a'f [] '>] d'ok` a'J ] [ a'f l'2J Y[ ] dJ gZ] q )

?jYh` ; ` Y'f \_] 'O' f f] j2 )

?jY\mYI] 'HYjI%æ ] 'A kljm[ l'gj '9oYj\ 'O' f f] j2 < Yna' ? mf \ ] je Yf )

J ] k] Yj[ ` '@\_` d\_ ' l2L' ] '= ] [ l'g^@ ] l] jg\_ ] f ] aq'gf '@qh] j\_jYh` ; gfIY\_ af 'E g\ ] dk )

J ] k] Yj[ ` '@\_` d\_ ' l2: m'af \_'9Alg' Kl'm'q'l' ] 'Kmf )

9kk&lYfI 'Hjg' ] kkgj 'F Yf [ q'J g\j\_a'm' r' j] [ ] a] k'F K>; 9J ==J '9oYj\ )

>gj'f'g? Yj[ a' '9oYj\ \ 'E Yl' ] e Yl' a' YdK[ a'f [] k' Hgkl\g[ l'gjYdJ ] k] Yj[ ` '>] d'ok` a' )

CYI] : nZYj2F Yl' af YdK[ a'f [] '>gnf \ Yl' af '?jY\mYI] 'J ] k] Yj[ ` '>] d'ok` a' 'Hjg\_jYe '9oYj\ ] ) 0

; M: g'm ] j'E ; E 'A E ; gfI] kl'J ] k'm'k ) 1

A 'E ] e gj'æe (

BY[ c'Ogg\ ` m'd (

H] I] j' L] ] Ik )

9ffnYd>mf \ '< j'a]



# Affiliated Faculty

9ϕ]rY'<ggklYf '%9]jgkhY[] '=f\_ƒ]]jƒ\_  
 Bg`f`'=nYfk'%9]jgkhY[] '=f\_ƒ]]jƒ\_  
 Lge gcg'E Ylkn9 '%9]jgkhY[] '=f\_ƒ]]jƒ\_  
 <Yfā dK[` ]]]k '%9]jgkhY[] '=f\_ƒ]]jƒ\_

BmjāLgge j] '%9kljgh` qkā Ydġ 'HǾf]IYjq'K[ā f[]k

Bmā] Dmf \i mkl '%9le gkh` ]jā 'Yf \ 'G[] Yfā 'K[ā f[]k  
 B] j] q: 'O] āk '%9le gkh` ]jā 'Yf \ 'G[] Yfā 'K[ā f[]k

>YI]e Y` HgnjY` e Y \ āf '%; anā=f\_ƒ]]jƒ\_

=āYZ]I` : jY \ ā q '%; ge hm]j 'K[ā f[]  
 B] \ : jgof '%; ge hm]j 'K[ā f[]  
 PāYg% ` nYf ; Ya% ; ge hm]j 'K[ā f[]  
 9Yjgf ; dmk]I` '%; ge hm]j 'K[ā f[]  
 J Y Y] d>jgf\_āā '%; ge hm]j 'K[ā f[]  
 <Yfā dDYjj]e gj] '%; ge hm]j 'K[ā f[]  
 KjāYe 'KYfcYjYfYjYqYfYf '%; ge hm]j 'K[ā f[]  
 @]fjqLm9 '%; ge hm]j 'K[ā f[]

F YIYk` Y`>ϕ]j '%<] hYjle ] fl'g^9hhā \ 'E YI` ]e Ylā k

; Yjϕk'E Yjā f k%ā g%=[gf ge ā k

M] '@]jr'ā d` '%; A] =K\$=d[ljā Yā; ge hm]j 'Yf \ '=f]]j%  
 \_q'=f\_ƒ]]jƒ\_  
 =e āYf g'<Yā f]k] '%=d[ljā Yā; ge hm]j 'Yf \ '=f]]j%  
 \_q'=f\_ƒ]]jƒ\_

Bg`f ; jā Yāā% ; anā=f\_ƒ]]jƒ\_ \$=fnāgf e ] fl' :  
 9j[` ā][lm] '=f\_ƒ]]jƒ\_

<Yn] `>jāk '%? 9LK 'Ā [

9fY'E Yjā'J ] q%Bā9

KI]h` Yf 'KYāf '%Bmā]j 'ĀI] ā ] f[]

K[gl]'=āā\_lgf '%DYZ' 'g] '9le gkh` ]jā 'Yf \ 'KhY[]`  
 H` qkā k

E Yf m] dDY\_mf Y%D] ] \ k[K[` ggdg^: nkā]kk  
 F YI` Yā 'E gq] f '%D] ] \ k[K[` ggdg^: nkā]kk

K]Yf 'Gō gnj c] '%E YI` ]e Ylā k

>jYf[c'N]jf]]q'%E ] [ ` Yfā Yd=f\_ƒ]]jƒ\_  
 HYljā c'O] ā e Yf '%E ] [ ` Yfā Yd=f\_ƒ]]jƒ\_

9æ † '>gnj f ā j '%=YjI` \$9le gkh` ]jā 'Yf \ 'HǾf]IYjq'  
 K[ā f[] 3E YkkY[ ` nk]Iik 'Ā klām] 'g^L] [ ` f gϕ\_q

9ffā c'Hgm m]I '%F Ylā f Yd; ] fl]j' 'g] '9le gkh` ]jā`  
 J]k]Yj[ `

E ]j] \ ā ` : ]II]jlgf '%H` qkā k  
 E ā ` Y]d; Yāā k '%H` qkā k  
 Bg`f ; Yjq '%H` qkā k

# Department Staff

# Doctor of Philosophy Graduates

## Sabina Altus:

E mlakljm[ lm] \ 'hghmYlæf 'e g\ ] k'Yf\ 'YfYokak'g^I' ] ð 'Ykkg[ ðI] \ 'k] e a\_jgmhk&  
<ðk] jIYlæf '9\nakgj 2<Ynà : gjlr 'ž9HHE !

## Lewis Baker:

Æ 'j] f[] 'g^E mlahd ' <a nkæf ; g] [ ð fIk' ] ge 'Kf \_d 'HYlā d 'LjYb [ Igjā k  
<ðk] jIYlæf '9\nakgj 2<Ynà : gjlr 'ž9HHE !

## Alec Dunton:

E Yljæ'E ] I' g\k' 'gj <YIY ; ge hj] kkaof 'f 'DYj\_] % [ Yd '9hhæ Ylæf k  
<ðk] jIYlæf '9\nakgj 29d] rY <ggklyf 'ž] jgkhY[] '=f \_f ] ] f \_K [ ð f [] k!

## Fortino Garcia:

F mē ] jā YdE ] I' g\k' 'gj 'O Yn] 'H' ] fge ] fY  
<ðk] jIYlæf '9\nakgj 2<Yf ā d9hh] d-ž ā ` a\_Yf 'KIYI] 'Mf an] jkād!

## David Gunderman:

@a` %j\ ] j' khYlā d\ ðk] ] lā Ylæf 'Yf\ 'f mē ] jā Ydā ] \_j Ylæf 'k [ ] e ] k' 'gj [ m] n] \ \_ ] ge ] l] jā k  
<ðk] jIYlæf '9\nakgj 2Bg` f '9&=nYf k' ž] jgkhY[] '=f \_f ] ] f \_K [ ð f [] k!  
Yf\ : ] f \_ ] > gj f Z ] j \_ ž9HHE !

## Erik Johnson:

E Yd'jā d\_] f ] lā k\$æ Y\_f \_j] kgdmlæf \$nY [ [ f ] ] [ Y [ q\$g` 'e q  
<ðk] jIYlæf '9\nakgj 2<Yf 'DYjj] e gj] ž ge hm] j 'K [ ð f [] ! Yf\ 'KI] h` ] f : ] [ c ] j 'ž9HHE !

## Osman Malik:

Lghā k'f 'E Yljæ 'Yf\ 'L] fkgj ; ge hmYlæf k  
<ðk] jIYlæf '9\nakgj 2KI] h` ] f : ] [ c ] j 'ž9HHE !

## Joy Mueller:

9\nYf [ ] k'f 'KIYlāklā Yd=\\_] ' < ] I ] [ læf  
<ðk] jIYlæf '9\nakgj 2B] e 'F & ; gj [ gj Yf 'ž9HHE !

## Jeremy Thompson:

Dg [ Yd > gmjā j '9f Yokak'g^H% ml\_jā 'Yf\ ' < ge Yf ' < ] [ ge hgkæf 'E ] I' g\k' 'gj`  
@a` %j\ ] j' > f ā ] '=d e ] fIk  
<ðk] jIYlæf '9\nakgj 2B] \ : jgo f 'ž ge hm] j 'K [ ð f [] !

## Lucia Minah Yang:

F mē ] jā Yd9f Yokak'g^E ap] \ 'H] [ ðæf '9d\_gjā ` e k'Yf\ 'Læ ] %k] hh] jk' 'gj 'O Yn]  
LmjZmā f [ ] \$Yf\ '? ] f ] jYlā] 'E g\ ] d f \_ 'gj '9f Yok'f ' < YIY '9kkæ æ Ylæf  
<ðk] jIYlæf '9\nakgj 2Af '? jgge k' ž9HHE !

# Graduating Class of 2021

F ą` gđk': Yj] f\j] \_l  
Kl] nYf 'E Yckæ gnđ  
9ZjYe '=đkgf  
; Yđ Z'H] ff]j

F ą` gđk'9e Zjmr  
9\Ye 'Dárdj  
>đ fđf': ] f\]j  
J Y[ ' ] d9ff] đk] 'Dqf [ `  
BYe ]k'; Yl]k  
Bmđ 'E Yll` đk  
; `jđklgh` ]j]; jYa  
Bgk` nY'E ] đđf

## Bachelor of Science in Applied Mathematics

*"On behalf of the faculty and staff of Applied Mathematics,  
We wish to express our deepest admiration of your dedication and perseverance in achieving your educationalU e lin*

# Graduate Awards

## Academic Engagement Award:

Erica Landreth, AMEN BS

Jenna Trost, CHEN BS + AMEN BS

## Global Engagement Award:

Emily Zuetell, MCEN BS + AMEN BS

## Justice, Equity, Diversity & Inclusion (JEDI) Award:

# Introductions and Promotions

## Welcoming Dr. Judith Law

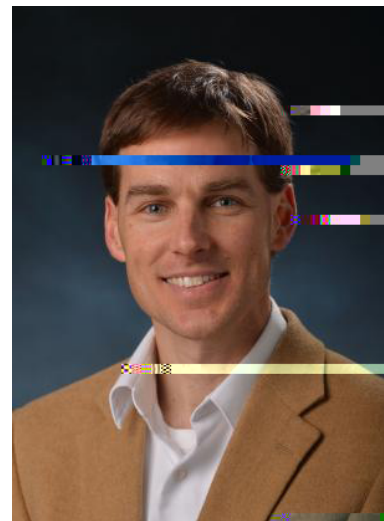
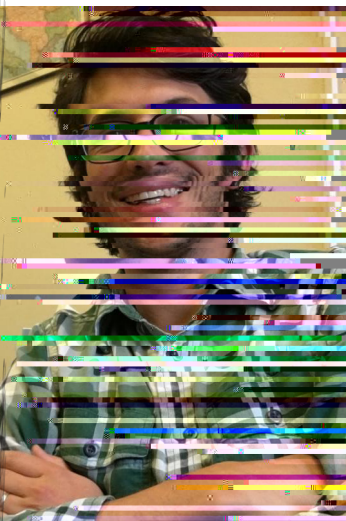
L' ak'Yo\$9hhq\ 'E Yl' 'o] d[ge ] \ '<j&Bm\ a' 'DYo 'lg'l' ] 'Hjg' kka'f YdE Yk%  
l] j@'Hjg\_jYe 'Yk'l' ] '9kkg[ a'l ] '< a ] [lgj'  
9k'Yj] k] Yj[ ' ] j\$<j&DYo 'ak' f'l] j] kl] \ 'hjæ Yj a' f' ' a' j Yj[ ' a' YdYf \ : Yq] ka'f '  
klYl akl a' k&@] j' f'l] j] kl' f' l' ak' Yj] Y'l ]



**Professor Mark Hoefer**

**&**

**Associate Professor Zachary Kilpatrick**



**A Year in  
Review:  
News and  
Events**



9l' ] Z]\_f f g^l' ] Y[Y\]e d'q] Yj\$l' ] <] hYjle ] fl'g^9h%  
hd\ 'E Yl' ] e Yl d'k'Yf fgmf [ ] \ 'l' ] j] [ d' f l' g^l' ] ' J m' q' @gjf ] '  
E ] e gj d>] d' k' d' 2\_j Y\ mYl ] ' klm ] fl' K] j] fY' < d] gf Yj \ g

K] j] fY' k' Y' b' k' l' q] Yj' klm ] fl' f' l' ] ' 9hhd\ 'E Yl' ] e Yl d' k' \_j Y\ %  
mYl ] ' hjg \_j Ye ' o' g' hj] n' g' k' d' \_j Y\ mYl ] \ ' o' d' ' Y: Y[ ' ] d' j' g^  
K[ d' f [ ] ' f' 'E Yl' ] e Yl d' k' Y' d' f' \_' o' d' ' Y' E Ykl ] j' < ] \_j ] ] ' f' = f n d %

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# 2022 U.S. News & World Report Graduate Program Rankings

9hhd\ 'E Yl' ] e Ylq' k' hJg\_jYe 'E YfY\_] j\$E Yjq' > ] flj] kk\$' Yk' Z] ] f' fYe ] \ Y'; gdl\_ ] g^' 9jlk' t' K[ d f [ % ] k' = e hqj ] ] g^' l' ] Q Yj' l' ] ' 9' K' < ] Yf' Q' KIY ' 9\ nkgjq; ge e dl ] ] j] d Yk \ Y k l Yl ] e ] flj ] [ g\_f a r % f \_ E Yjq' km [ ] ] kk2

9k' Y' o' g d \$ l' ] ; gdl\_ ] g^' = f \_ f ] ] j f \_ Y f \ ' 9 h h d \ ' K [ d f [ ] j Y f c k' \* . l' ' gn ] j Y d d f ' l' ] ' f Y l a f ' Y e g f \_ h n z d f ' m f a n ] j k a d k & l' ] ' Y ] j g k h Y [ ] z ( l' ! ] f \_ f ] ] j f \_ h j g \_ j Y e ' j Y f c ] \ ' f ' l' ] l g h ) ( ' gn ] j Y d d f ' l' ] a' j ] k h ] [ l a n ] ' p ] d & > m l' ] ] j e g j ] \$ l' ] [ ' ] e d Y d z , l' ! \$ [ a n a z \* ( l' ! \$ z a g d \_ d Y d z \* ) k l ! \$ Y f \ ] f n a g f e ] f l Y d z , l' ! ] f \_ f ] ] j f \_ h j g \_ j Y e k' z ] Y [ ' ] \ l' ] l g h \* - ' gn ] j Y d d f ' l' ] a' ] p ] d k &

## College of Arts & Sciences Employee of the Year: Mary Fentress

9hhd\ 'E Yl' ] e Ylq' k' hJg\_jYe 'E YfY\_] j\$E Yjq' > ] flj] kk\$' Yk' Z] ] f' fYe ] \ Y'; gdl\_ ] g^' 9jlk' t' K[ d f [ % ] k' = e hqj ] ] g^' l' ] Q Yj' l' ] ' 9' K' < ] Yf' Q' KIY ' 9\ nkgjq; ge e dl ] ] j] d Yk \ Y k l Yl ] e ] flj ] [ g\_f a r % f \_ E Yjq' km [ ] ] kk2

Qgmj' d Y \ ] j k' a h \$ f f g n Y l a n ] \ j a n ] \$ Y f \ ' m f ' Y a d f \_ \ ] n g l a f ' l g ' q g m j ' l ] Y e ' o ] j ] i m Y d d k [ ] d z j Y l ] \ Z q ' q g m j [ g d Y \_ m ] k ' o ' g f g e f Y l ] \ ' q g m ' g j ' l' ' k' Y o Y j \ & Q g m o ] j ] j ] [ g\_f a r \ ] ] h ] Y l ] \ d i ' g j ' q g m j ' h j g ' k % k a f Y d k e \$ o ] Y d ' g ^ f k l a m a f Y d c f g o d \ \_ ] \$ Y f \ ] ] [ l a n ] ' e Y f Y \_ ] e ] f l ' g ^ l' ] ' < ] h Y j l e ] f l ' g ^ 9 h h d \ ' E Y l ' ] e Y l q ' k &

9hhd\ 'E Yl' ] e Ylq' k' < ] h Y j l e ] f l ; ' Y a ] p h j ] k k ] \ ' k' k m h h g j l ' f ' E Y j q ' o f f f \_ l' ] ' Y o Y j \ \$ k Y q a f \_ l' Y l ' O H H E ' k' n ] j q ' g j l m f Y l ] ' Y f \ ' g f g j ] \ l g ' Y n ] ' k m [ ' Y \ ] d Y l ] \ e ] e Z ] j g ^ g m j \ ] h Y j l e ] f l ; ; g f \_ j Y l n d l a f k ' E Y j q i O

Gf d k g e ] g ^ l' ] ' e g k l ' a e h Y [ l ' n d k l Y ' j ] [ ] a n ] l' ' k' Y o Y j \ \$ o a ' l' ] ' K I Y ' 9 \ n k g j q ; g e e d l ] ] ' K I Y l f \_ l' Y l ' ] ' Y o Y j \ ' k \_ a n ] f ' Q f ] j ] [ g\_f a a f ' Y f \ ' Y h h j ] [ a l a f ' g ^ ] p [ ] h l a f Y d l o z ' h ] j ' g j e Y f [ ] & > m l' ] j % e g j ] \$ l' g k ] ' o ' g ' o f ' l' ] ' Y o Y j \ ' k' g m d ] [ g f k a k l ] f l d k ' g o ' Q g m k l Y f \ f \_ h ] j ' g j e Y f [ ] ' f ' Y d d Y j ] Y k ' g ^ l' ] a' l o z ' k h a ] ' d Y \ ] j k' a h ' f ' l' ] \ ] h Y j l e ] f l ; ; Y f \ ' h j g n a ] U g m k l Y f \ f \_ k ] j n d ] l g [ Y e h n k Y f \ l' ] ' k n j g m f \ f \_ [ g e e n f a q O

# Computational Science Fellowship

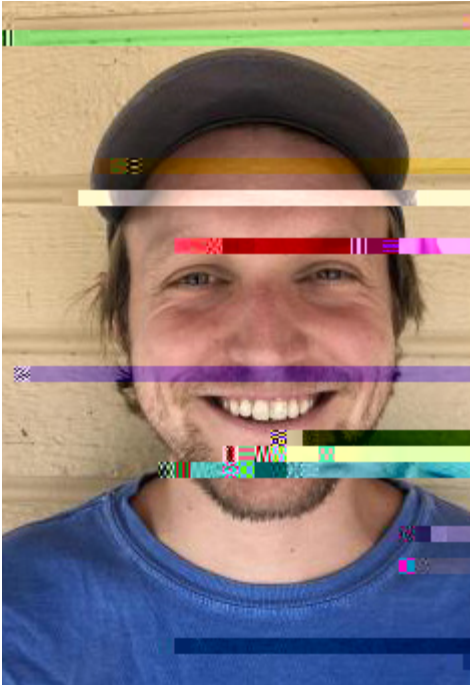
## Recipient: Rachel Robey

A`K]hl]e Z]j`g^\*( \*(\$9hh` \ `E Yl` ]e Yl`k` \g[lgj%  
Yd[Yf\`a`Yl]`J Y[`] dJ gZ] qj][ ]an] \ `Y<] hYjle ] fl`g^  
=f]j\_q; ge hmYl`af YdK[`a`f[] `?jY\`mYl] `>] d`gok` ah\$  
<G=; K? >`g`k` gjl& Y[`] \$o` g`k`Y`e ]e Z]j`g^  
<Yf`a`d9hh] d`Q]j]k] Yj[`] \_jgmh\$ oYk`gf] `g^\*. \g[%  
lgjYd]k] Yj[`] jk`o` g`o]j] \_an] f`l` ] Yo Yj\`lg`kmh%  
hgjl`Yf\`^m] ]j`l` ] a]j]k] Yj[`] `f`l` ] b] d`g^Yhh`d` \`  
e Yl` &HYj]g^l` ] `^ d`gok` ah] fkm] k`l` Yl`J Y[`] do ad  
Z] [gf\`m[ `l`a`\_j]k] Yj[`] `Yl`gf] `g^Y`h`d`l` gjY`g^j] %  
k] Yj[`] `d`ZgjYlgj`a`k`l` Yl`l` ] <] hYjle ] fl`g^=f]j\_q;  
go f`k`Yf\`e YfY\_]k&`

L`k`^ d`gok` ah]e h`Yk`k`l` ] `a` hgjlYf[] `g^  
`a`%]j`gje `f`\_[ge hmYl`af `o` `a` `k`d`n]jY\_] \ `lg`  
kgoh] `a` hgjlYf]l\$[ge h`d`p`k[`a`f[] `Yf\` ]f`\_a`]]j`a`\_`h`jgZ`d`e k`l` Yl`^Y[] `l` ] `f`Yl`af`  
lg\`Yq& ] [Ymk] `g^l` ] `a` `a` hgjlYf[] `Yf\`kh] [ `a`[`a`q`g^l` ] `^ d`gok` ah\$] [ ah%  
`a`f`l`k`Yj] `Ykc\`lg[ge h`d`l] [gm]k]k`a` ]f`\_a`]]j`a`\_`\$[ge hm]j`k[`a`f[] \$gj`Yh%  
h`d` \ `e Yl` ]e Yl`k`Z] `gj] `e gn`a`\_`gf`lg`o`gjc`Yl`Y`<G=`d`ZgjYlgj`q&

A`Y`k`l`Yl]e ] fl`^ge `l` ] <] hYjle ] fl`g^=f]j\_q`Yf\`l` ] `C] d`l`k`l`a`m] `Z`[`g]hg%  
jYl`af` `gm`f\` ] `a` `k`m`h`g`j]g^l` `k`^ d`gok` ah!\$l` `k`^ d`gok` ah`Yf\`k`m`Z`k]i`m] fl`  
]ph]j`a`f[] `k`Yf`Q` L & j a`

# GraphChallenge Winner: Alec Dunton



Æ'K]hl]e Z]j'g^\*( \*(\$9hhd\`E Yl` ]e Ylđ k`\_jY\mYl]`  
klm\] fl'9d[ '<mf lgf`Yf\` `k'l]Ye`o gf`l` ]`?jYh` ;` `Yd%  
đ f\_]`Yk`Y`hYj]g^` k`kme e ]j`đ l]jfk` k`h`Yl`DYoj]f[]`  
Dan]je gj]`F Ylđ fYdDYZgjYlgjq&L` ]`?jYh` ;` `Yđ f\_]`\$Yk`  
]phđ f\` \`gf`l` ]` [ `Yđ f\_]`@`o]Zka] \$k`Y`[mjYl]` \`Yf\`  
gh]f`k[YdZđ`\_jYh` `YfYđ k`k[ge h]lđ đ f`o` đ` `Q`f[gmj%  
Y\_]k[ge e mf đ q`YhhjgY[ ` ]k`lg\`n] đ hđ`\_f]o` k`gđ hđ f`k`  
`g]`YfYđ f`\_`\_jYh` k`Yf\`khYjk]` \`YlY\`]jan]` \`]ge`kg[đ d`  
e ]\`đ \$k]fkgj`^]]\`k\$Yf\`k[đ flđ [ \`YlY`lg]fYZđ`j]đ`%  
lđ f`k` k`Z]lo]]f` ]n]f`l`k`lg`Z]` \`k[gn]j] \`Yk`l` ]q`mf`gd`  
đ`l` ]`p]đ`đ`A` `Yk`Z]]f`Y`q]Yjđ`pplmj]`Yl`l` ]`A`==`@a`  
H]j`g]je Yf[]`=plj]e ] ;` ge hmlđ`\_`ž@H=;` ![gf`^]j]f[]`  
kđ []`\*`()/`\$Yf\`kgđ`đ`k`đ`f`gnYlan]`Y\`nYf[]`k`lg`hj]kđ`\_`  
h]gZđ`e`k`km[ `Yk[gm]lđ`\_`kmZ`\_jYh` `k`ge`gjh` `k`e`k`Yf\`  
[đ`kl]jđ`\_`klj]Ye`đ`\_`\_jYh` `k&

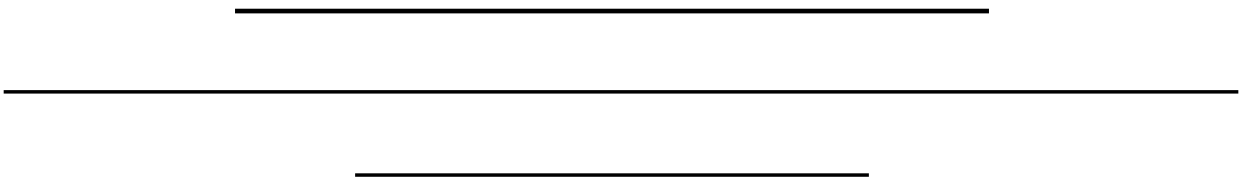
9đ [ @`l]Ye`\$[ge h`gk]\`g^: ]f`l`Ye`đ`O`&H]đ`kl`ž`Hgkl\`g[l`gjYd] ]k]Yj[ ` ]j\$DYoj]f[]`  
Dan]je gj]`F Ylđ fYdDYZgjYlgjq`Yf\`? ]g`j]q`KYf\`]jk`ž`9HHE`H`<`9`đ`re`f`nk!\$hmZ`%  
đ`k` ]\`l` ]`o`đ`f`đ`\_`h`Yh]j`ž`đ`đ`\`2K[Yđ`f`\_`?jYh` ;` đ`kl]jđ`\_`o`đ` <`k`lj`ž`m]`\`Kc]l[ ` ]k`l`  
đ`o`đ` `l` ]l]Ye`h`j`g`h`g`k]k`O`\_`jYh` [đ`kl]jđ`\_`Yd`g]đ`e`o`đ` ` [đ`[me`n]f`l`k`k[YdZđ`đ`%  
đ`q`đ`k`km]k`đ` ]j]f`l`đ`l`jY\`đ`đ`f`Yde ]l`g`l`k`km[ `Yk`kh][l]Yd[đ`kl]jđ`\_`đ`L` ]mf\`]jđ`f`\_`  
\_`gYdg`^l` ] [ `Yđ`f\_]`o`Yk`lg`đ`]fl`đ`q`ghl`æ`Yd[đ`kl]jđ`\_`Y`đ`j\_]`\_jYh` `kl`gj]` \`đ` \`k`lj`ž`%  
m] \`e ]e`gj`q`&A` `g] \`j]lg`Y[ `đ`n]`l` `k`\$9đ [ ]`phđ`đ`k`2

Q` ]`mf`kmh]jn`k] \`đ`Yj`f`đ`\_`g^`[ge e mf đ q`kljm[lmj]`k`Y`[Yf`gf`đ`Yđ`so]`đ`klm`đ` \`  
h]gZđ`e`đ`\_`\_jYh` `YfYđ`k`k`&Gmj`[gf]l`ž`m]lđ`f`k`Yf`Yd`g]đ`e`o`đ` `m]lđ`k]jYf\`ge`  
h]g]đ`[lđ`f`lg`h]g\`m] ]e`Z] \`đ`\_`k`o`đ` `Y[ `đ`n]`h]j`g]je`Yf`l`[đ`kl]jđ`\_`j]`k`m]k`^`g]`  
`m]lđ`%`q`f`Ye`đ`k`lj]Ye`đ`\_`\_jYh` `e`g\`đ`&A`k]Y\`g^`j]`đ`đ`\_`gf`Yf` ]`ph]f`kan] ]`a]f\`%  
[ge h`gk]lđ`f`[ge hmlYlđ`f`Yk`đ`kh][l]Yd[đ`kl]jđ`\_`YhhjgY[ ` ]k`\$o]`nk]`l` ]`Yk`l`Bg`f`%  
kgf`đ`đ` \`f`kljYm`kk`Yf\` ;` gm]l`Kc]l[ `l]Yf`k`g]je`k`^`đ` [lđ`lg]`e`Z] \`Y`\_`jYh``%`h]f\`fl`  
e`Yl]p`&L` ]k]`đ`f]Yj` \`æ ]f`k`đ`f`j] \`m]lđ`f`YhhjgY[ ` ]k`\$nk] \`đ`l`Yf\`e`o`đ` `l` ]`f`gf`đ`f`%  
]Yj]e`Z] \`đ`\_`Yd`g]đ`e`ME`9H\$]h]g\`m] ]đ`o` \`æ ]f`k`đ`f`Yd]`h]j]k]f`l`Ylđ`f`k`o`đ` ]f`%  
YZđ` ]` [đ`fl`[đ`kl]jđ`\_`g^`đ`j\_]`%[Yđ`\_`\_jYh` `k&Gmj`e ]l`g\`[gm]l`k`a`f`đ`[Yf]l`đ`æ`h]gn]`  
\_`jYh` [đ`kl]jđ`\_`h]j`g]je`Yf[]`đ` \`k`lj`ž`m] \`e ]e`gj`q`đ`

L` ]`<]hYjle ]fl [gf`\_`jYl`m]l]k`9đ [ `gf`l` `k`æ`hj]k`kan] `Y[ `đ`n]e ]fl

A`Fgn]eZ]j\$9hhc\`EYl`]eYl[k<]hY]le]fl`  
 [gf\_jYlml]\`<Yna`?mf\]jeYf`^gj][][]anf\_`l`]  
 >Yd`\*(`?jY\mYl]`HYj]l%æ]`A`kljm[lgj`9hhj][a%  
 laf`9oYj\&Gn]j`l`][gmj]`g^l`]`d`kl`+(`q]Yjk\$]m]`  
 ?jY\mYl]`K[`ggd`Yk`YoYj\]\`?jY\mYl]`HYj]l%æ]`  
 A`kljm[lgj`L]Y[`f`\_`=p[]`d]f[]`9oYj\k&@go]n]j\$  
 l`k`q]Yj\$`d`l`g^l`]`gf\_gf\_][Ye`hmk[`Y`d]f\_]k\$  
 l`]?jY\mYl]`K[`ggd[j]Yl]\`l`]?jY\mYl]`HYj]l%æ]`  
 A`kljm[lgj`9hhj][a]laf`YoYj\lgj][g\_f`a]`\_jY\mYl]`  
 klm\]fIk`o`g`Yn]`lYc]f`gf`l`][`Y`d]f\_]`g^l]Y[`

pl`k/`m]j` A`k



# Research Highlight: Building AI to Study the Sun

DYkl'q] Yj\$Y' \_jYfI'lg'klm\q'kgd'j'o] Yl' ]j'nk%  
f\_e Y[ 'f] 'd Yjf f\_o Yk'mf\ \ \$Yf\ 'Ye gf\_  
l' gk] 'o gjc'f\_gf'l' ] 'hjb [l\$] '9hh\ 'E Yl'  
<] hYjle ] fl' go f 'Hjg' kkgj 'BYe ] k'E ] ak'Yf\  
9 d'l] '<j&F YlYk' Y>d] j'Yj] ' 'a' d' l] \&

A' Yf 'Yjl' d j] d Yk] \ 'Zq'l' ] ; g'd ] 'g^=f%  
\_f] ] j'f\_ 't '9hh\ 'K[ d f [ ] k'l' ad \ : m' d f '  
[Yjl' d f \[ \] 'lg'klm\q'l' \] 'knf \\$<j&E \] ak'](#)  
Yf\ '<j&>d] j'Yj] 'd'kl] \ 'Yk'hYjlf] j'k'gf'l' ] 'hjb'  
] [l' 'Yl' Yæ k'lg'Z] l] j' 'gj] [Ykl'kgd'j'o] Yl' ] j'  
l' Yl' æ hY[ 'Ik'kYl] d' ] [ge e mf d Yl' g'f k'Yl' =Yj] '  
Zq'nk'f\_ 'Yjl' d f [ ] 'e Y[ 'f] 'd Yjf f\_ &  
A' Z] f\_ 'YZd 'lg' 'gj] [Ykl'kgd'j'BYj] k'Yf\ ' [gjgfYd  
e Ykk' ] b [l' g'f k' e gj] 'Y[ [m] Yl] d \$a\_ 'an] k'o Yjf %  
f\_ 'lg' l' gk] 'gf' =Yj] 'l' Yl' e Yq'Z] 'æ hY[ l] \ \$  
Yk'o] d' Yk' \_an] k'l'æ ] 'lg' ZjY[ ] 'gj' Yf q] f k'm' f\_ '  
gm' Y\_ ] k'lg' kYl] d' ] [ge e mf d Yl' g'f k' \$o' d' 'Yj] '  
'mf\ 'Ye ] f l' Yd'lg' e Yf q' Ykh] [l' k'g^e g\ ] j'f' d' ] &

>gj'e gj] 'f 'gje Yl' g'f' l' ] 'hjb [l\$] Y\ l' ] '[gja f YdYjl' d d](#) 'hgkl] \ 'Zq'l' ] ; g'd ] 'g^=f\_ f] ] j'f\_ 't '  
9hh\ 'K[ d f [ ] k\$gj' n'k' l' ] '[KhY\[ \] 'O\] Yl' \] j' L\] \[ 'f g' d' q' \\$ \] k\] Yj\] \[ ' Yf\ =\ m' Yl' g'f ; \] fl\] j' o\] Zk' l\]](#)

**LRp0P**

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# Fortino Garcia Awarded Mathematical Sciences Postdoctoral Research Fellowship

DYkl`q] Yj\$9hhč \ `E Yl` ] e Ylđ k`\_jY\mYl] `klm`] fl`  
>gj|đ g`? Yj[ đ`o Yk`Yo Yj\ ] \ Yf`F K>`E Yl` ] e Ylđ Yd  
K[ đ f [ ] k`Hgkl\g[ lgjYd ] k] Yj[ ` `>] đg k` đ&



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# In Memoriam

## Jack Woodhull

A'BYf mYj q\$[ ] <] hYjle ] fl'g^9hhc\ \ E Yl' ] e Ylq k] ] [ ] fl' d' d' Yj f \ \  
 g^l' ] ' hYkka' \_g^ a' \ a' e hY[ l' Yd' re fmk \$Bg' f' J d' \ Yj \ ' OBY[ c' O O gg \ \ m&  
 BY[ c' \_j Y \ mYl ] \ ' jge ; M: gm\ ] j' o a' \ YZY[ \ ] d' j \ \ ] ] ' f' \_f ] ] j %  
 f \_h' qk a' k' f' ) 1 - / Yf \ ' f' ) 1. ( \$ ] ] m j f \ \ ] g ; Mlg ] Yj f ' Y' e Ykl ] j \  
 \ ] ] ' f' ^9hhc\ \ E Yl' ] e Ylq k Y' ] j' k ] j n f \_ Yk Y' D a' m ] f Yf l' f' l' ] ' M&  
 F Ynq &

Ogg \ \ m d' f' ng h ] e ] fl' o a' \ ' ] ' M& & 9 j e \ \ > g j [ ] k' o Yk Y' l' ] e ]  
 l' ] j g m \_ g m \ \ k [ Y j ] ] j Yk \ \ ' o g m \ P f \ k n [ ] k k' f' l' ] ' h j a n Yl ] ' k [ ] l g j \$  
 k ] j n f \_ Yk h j ] k a' ] fl' Yf \ \ ; = G' g ^ \ \ ] f k ] k [ ] l g j \ \ ] Y n q o ] a' \ ] \$ D g \_ d' g f \$  
 A' [ & BY[ c' \ ] d' l' \ k' h g k a' g f' ' jge ) 1. 1' m f l a d ) 1 1 0' o \ ] f' F g j l' j g h' ? j m e %  
 e Yf ' e ] j \ \ ] \ o a' \ ' D g \_ d' g f \$ Y' Z a d f % g d' Y' Y [ i m a k a' g f' o \ ] f' Y \ m k l ] \  
 ' g j ' f B Y l a g f & D g \_ d' g f ' o Yk Y' d' Y \ ] j ' f' h j g n a' f \_ Y \ n Y f [ \ \ ] ] [ ' f g d' \_ q'  
 k q k l ] e k \$ Y j \ o Y j ] \$ k g \ o Y j ] \$ Y f \ ' g l' ] j' k ] j n a' ] k' l g' l' ] < ] h Y j l e ] fl' g ^  
 < ] f k ] \$ l' ] ' F Y n q \$ l' ] ' 9 a' > g j [ ] \$ l' ] < ] h Y j l e ] fl' g ^ B n k l a' ] \$ Y f \ ' g l' ] j'  
 \_ g n ] j f e ] fl' Y \_ ] f [ d k &

Ogg \ \ m d' f' ng h ] e ] fl' o a' \ ' ] ' M' a n ] j k a' q' g ^ ; g d j Y \ g \$ Y f \ \ ] k h ] [ ' a' d' j'  
 l' ] ' 9 h h c \ \ E Y l' < ] h Y j l e ] fl' \$ \ a' f g l' ] f \ m h g f \ \ k \_ j Y \ m Y l a g f & @ ] ' o Y k'  
 Yf Y [ l a n ] ' e ] e Z ] j' g ^ l' ] ; M [ g e e m f a d \$ k ] j n f \_ g f' l' ] ' M' a n ] j k a' q' g ^  
 ; g d j Y \ g > g m f \ Y l a g f : g Y j \ ' g ^ < a' ] l g j k Y f \ l' ] ' = f \_ f ] ] j f \_ ' 9 \ n a k g j q'  
 ; g m f [ a k' A' Y [ l \$ ] ' o Y k ; \ Y a e Y f ' g ^ l' ] ' = f \_ f ] ] j f \_ Y f \ ' 9 h h c \ \ K [ a'  
 ] f [ ] ; g d \_ ] \ ] ; ] fl' ] f f a d ; Y e h Y a f' l' Y l j Y k ] \ g n ] j fl' - / & ' e a d f \ g d' Y j k' f' l' ] ] Y j d' ) 1 1 ( k &



G ^ h Y j l a' m d' j f g l' ' o Y k' l' Y l' B Y [ c' k h ] Y j \ ] Y \ \ Y f ' a n ] k l e ] fl' f' l' ] ' f' o d' j [ ] Y l \ \ ' 9 h h c \ \ E Y l' ] e Y l q k'  
 h j g \_ j Y e ' g f' l' ] : g m \ ] j [ Y e h n k & @ ] [ ] Y l \ Y f ] f \ g o e ] fl' m f \ l' Y l' k m j n a n ] k l g' l' \ k \ Y q Y k' l' ] ' B & \ O g g \ \ %  
 \ m d' D g \_ d' g f ' l' ] Y [ ' f \_ H j g \ k k g j k' a h \$ l' ] ' b j k l' g ^ a k c a' \ g f' l' ] : g m \ ] j ; Y e h n k & < j & 9 f f ] < g m \_ ] j l q a' l' ] '  
 [ m j ] fl' l' ] Y [ ' f \_ h j g \ k k g j \$ Y f \ ' H j g \ k k g j B a e ; m j q \ \ d' l' ] ' h g k a' g f' ' jge ) 1 1 1 l g \* ( ) \* & L' ] ' h m j h g k ] ' g ^ l' ] '  
 h j g \ k k g j k' a h' a k' l g' k n h h g j l' n f \ ] j \_ j Y \ m Y l ] ' Y h h c \ \ e Y l' ] e Y l q k ] \ m ] Y l a g f \$ Y k B Y [ c' Z ] d' n ] \ l' Y l ] f \_ f ] ] j f \_  
 k l n \ ] fl' k' o g m \ Z ] Z ] k l' h j ] h Y j ] \ o a' \ \ ] \ a' Y l \ \ Y h h c \ \ e Y l' ] e Y l q k ] \ m ] Y l a g f' l' Y l' Y \ ] j k k ] \ j ] Y d o g j d'  
 h j g Z d' e k' l' Y l' o g m \ Z ] ' k n h h d' e ] fl' Y j q' l g' Y k l m \ ] fl' \ ] f \_ f ] ] j f \_ ] \ m ] Y l a g f &

O=Y[ \ ' q ] Yj ' A o j g l ] ' Y' k m e e Y j q' g ^ l' ] \ \ ] h Y j l e ] fl' \  
 Y [ [ g e h d k' e ] fl' k Y f \ l' ] ' g f ] k' A j ] e ] e Z ] j' o ] j ] l g'  
 Y [ [ ] d j Y l ] m f \ ] j \_ j Y \ m Y l ] j ] k ] Y j [ \ ' g h h g j l m f a d k' &  
 Y f \ \ ] d h f \_ l g j Y a k ] l' ] j Y f c a' \_ g ^ l' ] < ] h Y j l e ] fl' f'  
 l' ] ' F Y l a g f Y d 9 [ Y \ ] e a' k' g ^ K [ a' f [ ] k j Y f c a' \_ g ^ 9 h h c \ \  
 E Y l' ] e Y l q k \ \ ] h Y j l e ] fl' & A Y l j a' m ] l' ] k ] ' g m f \ Y l a g f %  
 Y d Y [ [ g e h d k' e ] fl' k Y f \ l' j Y f k ^ g j e Y l a g f ' l g' l' ] ' k l j g f \_  
 k n h h g j l' g ^ E j & O B Y [ c' O O g g \ \ m d' Y f \ \ ] k h ] [ ' a' d' j' k' d' j'  
 Y f \ ' k n h h g j l' g ^ n l m j ] \_ ] f ] j Y l a g f k' g ^ ] f \_ f ] ] j f \_ k l m %  
 \ ] fl' \ ] p [ ] d' f [ ] \  
 -Professor James Curry

L' ] < ] h Y j l e ] fl' e g m f k' l' ] ' h Y k k a' \_  
 g ^ Y k l j g f \_ Y f \ \ a' e h Y [ l' m d e ] e Z ] j'  
 g ^ l' ] ; M' Y e a d' o \ ' g' o Y k Y' e Y l a g j'  
 [ g f l j a' m g j f' l' ] \ \ k l g j q' g ^ 9 h h c \ \  
 E Y l' ] e Y l q k Y f \ o \ ' g k ] \_ ] f ] j g k a' q'  
 k m j n a n ] k l g' l' \ k \ Y q & @ a' d' \_ Y [ q' o a' d' a n ]  
 g f' ' g j l' ] ' k l m \ ] fl' k' o \ ' g Z ] f ] l' ' jge'  
 \ \ k' n a k a' g f & E g j ] ' f' g j e Y l a g f ' Y Z g m l' ] '  
 d' ] Y f \ ' k m [ ] ] k k ] k' g ^ B Y [ c' O g g \ \ m d'  
 [ Y f ' Z ] ' g m f \ ' f' \ \ k' g Z a' m Y j q

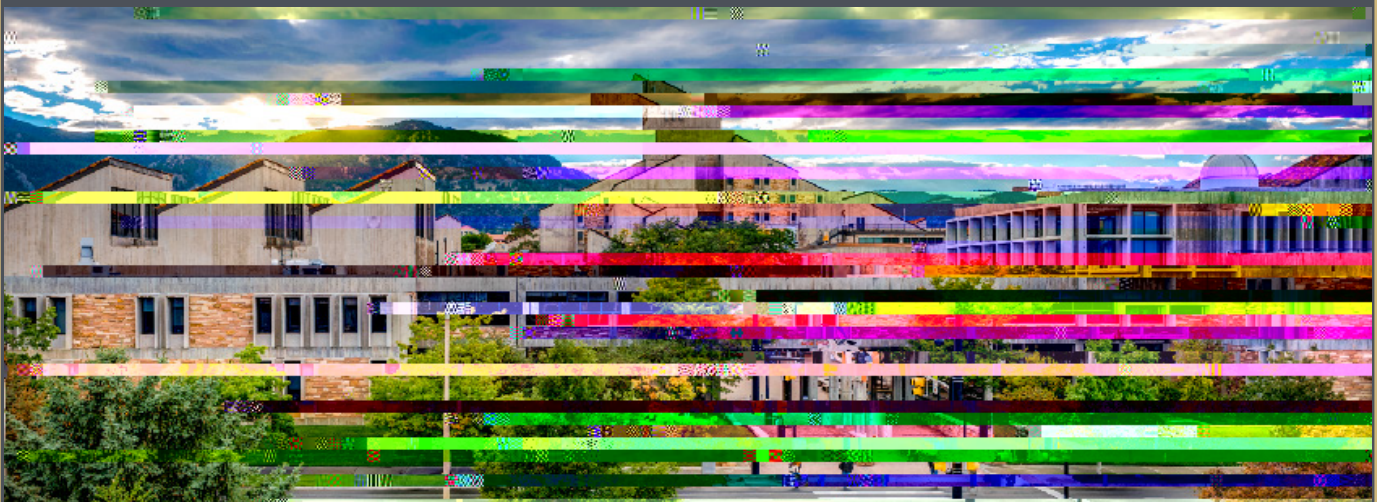


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