

# Hcd]W\* — CD! G BYh&&" — AUh? ž &\$%)

: fca . 6fi W7"6fbXhfWfbXh4a Uh 'i ]j Wxi tžK Yb! 7\]b[ K]bb]Y@fk ]4a Uh 'hdj 'Yxi tž  
UbX 'F"Ga Ufh]ga Ufh4a Uh 'k]gWxi ě  
G V'Wd] xgYd] @Λ bYf CVjh] Ufm

xgYd] @Λ bYf kUg Vcfb ]b BYk Mf\_ 7]hmcb CWhWf & ž % %& hc @ci lg UbX FUMY  
ffcgMbVi a tž UbX X]YX ]b <Y YfZcfXž D5 cb 5i [ i gh] ž &\$% " @Λ bYf]g g]j]b]z]Mkcf\_  
kUg df]a Uf]m]bWfbYX k]h U hca cfd]Mfcfa g Zcf X]gMbh]bi ci g [ fci dg UbX fYUHx  
bi a Vf h Ycfrh

žb % \* (ž@Λ bYf di V]g]YX cbY cZh Y Z]fghfYU]g]g]b 9b[ ]g] cb U hca cfd]Mfcfa gOQ  
k\]W ]bW XYX Vch h Y \]gcf]M VY[ ]b]b]b[ g cZh Y g] V'Wd]Ug kY" Ug 'Uhf XYj Ycd!  
a Ybgz Xi Y YgdW]J]n]c 9' <Y]Wz <"DMYfggbz <"FUKYa UWWfz UbX 7" @"GM[ Y" H]g  
Vcc\_ \UgWVta YUW]bg]MUbX \UggMj YX UgUb ]bfcXi W]f]n]Vcc\_ hc U hca cfd]Mfcfa g  
Zcf a Ubm[ YbYfU]cbg"

@Λ bYf]g]ya ]bU 'c]phd]ubYf k]h C]j Yf 5h]b OQ]bfcXi WX Ua Yh cX hgi Xnh]YU]h!  
a YjMz]a cXi 'Uf Zcfa gk\]W Z bX]a Yb]U m]W]b[ YX h Y Z]YX" H]Y ]X]UkUg]c W'W  
hc] Yh Yf Zcfa g Zcf Wb[ fi YbW g] V[ fci dg]Γ\_0(m) Zcf U^ m ≥ 1": cf Zcfa gcZΓ\_0(m) ž h Ym  
X]g]b[ i]g] YX īc]Zcfa g] k\]W U]g]Y bU] fU]m]ca Wgd Zcfa gcZΓ\_0(n) k]h n Xj]X]b[  
mž UbX ībYk Zcfa g] k\]W U]Y Zcfa gk\]W [ Ybi ]bYm]j Y]b Γ\_0(m)" H]Y Ym]jcbYYfYX h Y  
īh YcfmcZ bYk Zcfa g] k\]W fYX] Wg h Y g] XmcZ h Y U]h a YjMz]a cXi 'Uf Zcfa g Zcf  
Γ\_0(m) hc h UhcZ bYk Zcfa g] UbX h Ymgi X]YX h Y U]h a YjMz]bYk Zcfa g]b XY]h]" h Y  
5h]b@Λ bYf h YcfmcZbYk Zcfa gk U]Y h bXYX Vrh'A]b]Y Q]c Zcfa g Zcf Wb[ fi YbW  
g] V[ fci dg]Γ\_1(n) UbX W]a d'YHx Vrh]Y gW]bX U h cf Q]Q]c Zcfa g Zcf U^ Wb[ fi YbW  
g] V[ fci dg]cZ SL\_2(Z)" H]Y bYk Zcfa h YcfmbU] fU]m]YX hc U hca cfd]Mfcfa g UbX U!  
hca cfd]M]YdfYg]b]h]cbg Zcf GL\_2 ]b h Y U]Y]M]Y]b[ ž UbX ]h]h YfYzcfY \Ug]UX U]U!  
fYUW]b[ ja dU]U]b h Y h YcfmcZ U hca cfd]Mfcfa g" hc XU]h fYg]U]W]f]g \U Y W]y  
Yi h bX]b[ h Yf ]X]Ug hc g] Xnb]Yk Zcfa g Zcf cf]h]c]cbU [ fci dg" h Y 5h]b@Λ bYf cd!  
YfU]c]g]bfcXi WX ]b h Yf d]ubYf OQ]Ugc d]U]U]a bX]a Yb]U fc]Y]b h Y g]W]bX cz @Λ bYf]g] Zci f  
Xcm]fU g] XYb]g] UbX h Y h ]fx U h cf cZh]g cVjh U]m]g h Y g]W]bX cz @Λ bYf]g] Zci f  
Xcm]fU g] XYb]g]"

@Λ bYf YU]bYX \]g 6GUhBYk Mf\_ I b]j Yf]hmf% ' , ŁUbX \]g A5 f% ' - ŁUbX D]8 f% (%  
Uh]h Y I b]j Yf]hmcZ D]bbgn]Ub]U i bXYf h Y g] dYf ]g]cb cz <Ub]FUKYa UWWfz k\]ca \Y  
kUg 'Uhf hc XYg]h]YUg \]g H]W]f]b]b]a UbX Z]j]bX" @Λ bYf kUg h Y \* h cZ]FUKYa UWWf]g)%&%  
Xcm]fU g] XYb]g] UbX h Y h ]fx U h cf cZh]g cVjh U]m]g h Y g]W]bX cz @Λ bYf]g] Zci f  
Xcm]fU g] XYb]g]"

@Λ bYf W[ Ub \]g UWW]Y a M]W]f]Yf U]gUb ]b]g]f]i W]f]f]h7cfbY" ]b% (% % (' " ž% % (' ž \Y  
'c]b]YX ?Y]Y 7cfdcfU]cbz]k\]W kUg]b]c]j YX k]h h Y XYg]t bUbX ]b]h]U cd]f]U]cb cZh Y  
?&) X]Z] g]cb d]UbhUhCU\_F]X[ Y f]A]Ub\U]Ub Dfc]W]f]bW XYX A]Ub]cb  
6YbYX]M]UbX 9"]chAcblfc" ž XYj YcdYX U\]I \n]Ug]UbWX a Uh Ya Uh]W h YcfmcZ\ck U  
Wg]MKY cz U]ddfc] ja Uh]m]ci f h ci g]UbX g]t Yg]kci 'X fYg]cbX hc h]a Y! XYd]b]XYb]hX]g  
h f]UbWg]b]g]dYf]cfa UbW]i k\]h]h Yf U]Wg]MKY kci 'X a U]b]h]h Y]g]f]i f]UbW]z Y]U]b[  
i 'h]a Uh]m]c UX]g]f d]h] Ycf XYg]f]i W]j Y g] f]Y]b]d]Yg]f]i f]Y]c]f]k\]h]h Yf h Y Wg]MKY kci 'X  
X]a d ci h]h Yg]f Zi W]i U]cbg]b]h]k Ybh]h fci [\]g W]g]g]f]i Yg]f]i @Λ bYf UbX Acblfc"  
kYTY h Y d]f]b]v]b]U a Uh Ya Uh]M]bg]k\]c W]b]g]f]i Ybh]h]g]f]i YX g]g]f]a g]cZ]h]a Y UbX g]UW  
XYd]b]XYb]h]U X]Z]f]Yb]h]U Yei U]cbg]k\]W 'YX hc] Ub YZ]M]b]ha Yh cX Zcf d]fc]Xi V]b[  
I ! &) UhUbYk m]M]bg]f]i W]i]f Yb[ ]b]Yf A]Ub]cb 6YbYX]M]f]f]W]j]M]b]h]cZ h Y Bu]cb]U  
AYXU cZG]M]b]W]b% +) tž UbX h Yf [ fci d]z]W]b]g] 'h]b]b]f]a U]j Y ]b]Yf]M]k k]h 6]b]Y!

XJWQG 5Zhf K fYY nMfg @A bYf 'Yzh?Y"YI hc VVWa Y\YUK cZH Y a UH Ya UjMj [fc d Uh<nhfcWVcb FYgMfW bW

@A bYf fYh fbYX Vf]Yzntc UMKYa ]UUgUb 5ggcVJU Y DfcZVggcf UhK YI bJ YfgjhmcZDbb! gnj UbJUjb % (-1%) &ž VYzcfY 'c]jb]b[ @cg 5'ua cg GJMb]ZMWeUcfUcfmibf Zj Y nMfg žc`ck YX Vmtk c UXXJ]cbU nMfg Ub UWbgi 'KubH' 5h@cg 5'ua cgž \Y Z fK Yf kcf\_YX cb K Y AUb\ UHUb Dfc'YVb XYj Ycd]b[ K Ycf]YgcZX]Zi gjcb WgMXYg UbX bYi fcdb HUbgcfH' b% ) +ž \Y fYh fbYX hc UMKYa ]Mdi fgi ]gj hc VVWa Y DfcZVggcf UhA]M]Ub GUH YI bJ j YfgjhmcZf gj nMfgk\]Mw kYfYz`ck YX Vrb]bY nMfgUhK YI bJ YfgjhmcZAUfnUbX' <lg 'Uhdgjhcb kUb UbAY`cb DfcZVggcf UhK YI bJ YfgjhmcZD]hgM f[\ Zica % +& hc % , \$"

@A bYf di V]gj YX hc c Vcc\_g UbXž UMMFX]b[ hc AUh GJBYrž UhcU cz \* + fygMfW dU dYfgk]A Zj YU]gb[ Zica \gkcf\_ ]b XYzYbgM': i fK Yfa cfYz\Y di V]gj YX % dfcVYg UbX#cf gc i Hcbg]b K Y American Mathematical Monthly" bW X]b[ 5h]b@A bYf \UK %/ VwU Kcfgk]A AUj ]b ?bcdl UbX AcfflgBYka Ub V]b[ \gaga cghZYei YbhWt'UcfUcfg'

6YcfY a Yh]b[ egYd\ñj zuh Yfž @A bYfñj a ch Yf FUMY \UK VVb a Uff]YX hc Gja i Y FUddcfhUWfY ]UH XZica K Ycf]b U FUddUdcfHž [j]b[ V]fK hc Zj YW]XfYb VYzcfY\Yf \i gUbX XjYX" Q Y h Yb a Uff]YX xYñj zuh Yfž k\c \UK \UK Zj Y W]XfYb Vm]gdfYj]ci g a Uff]U Y' H Y zuh ]nñj Yb a cj YX hc AUbgUm gMtg' H Yjf ZfghW]X kUb Vcfb Uh\ca Y UbX gccb XjYX" K]A \Yf gMtbX dfY[ bUbWñj Yf glghf ZcfMX \Yf hc fYh fb hc BYk Mf\_ 7]mhc \Y Y \Yf VUWmUhU\cgd]U/ K]g VUWmkUb >Y @A bYf": cf \Yf K]fx UbX 'Ujh dfY[ bUbWñj xYñj a ch Yf Uj Wcgyhc \Y Yh YV]fK Uh\ca YzUbX K Y VUWmX]YX" K\Yb >Y kUb K fYY nMfgc Xz\]g dUfYbgh Xj cfWXž UbX \Y UbX \]g zuh ]ma cj YX VUJY hc BYk Mf\_ "5gUHvblc[ Yf]b BYk Mf\_ 7]m\Yf]T]hu]fuk]c dUfY]M]UH X cb K Y XWUH Yhla ]b \I\ gWccž UbX \YdYX cbYcz\]g\UZ Vfc]Yf]b \]g \Uk cz]Wž gca Yh]a Yg UddMf]b[ ]b Vt]b d'UWcZ\]g\UZ Vfc]Yf" @A bYf [ fUki UH X Zica \I\ gWcc` ]b % &, UhK Y U YcZ% "5Zhf Ug\cfhgtuhUhUb YI dM]a YbhU W"Y[ Y]b K]gMtbgbjz\YfYh fbYX \ca Y hc KU YVf fgyg]b a UH Ya UjMjUbX gJMbWUhbYk Mf\_ I bJ YfgjhmbM]c'K\]YXc]b[ gcž \Y cVUjUbYX Udcgjhcb \_Yd]b[ fWb]fXg UhAUñj k\]W kUb hc 'UjhUci hgMj Yb nMfg' Si YhK H Y8YdfYgg]cb\Y'cgh\]g'cVUhAUñjVi hyj Ybh U'mUbXYX Udcgjhcb cb UK D5 dfc'Wñj k]f]b[ \]g Zfghdi V]g\YX dUfYfž \DfcXi Vjcbž 9a d'cna Ybh UbX DfcXi Vj]jñj ) + G/YWfYX bxi gfh]Ygj' H]g dfc'Wñj kcc\_ \]a hc D]TUKYd\]U]b % ' \* ž k\YfY \Y kcc\_ Vt]f gfgj UhK YI bJ YfgjhmcZD]bbgnj Ub]Uk UhVt] X VY fUbgYffYX hc BMiž Zica k\]W \Y YUfbYX U6G]b % ' , " @A bYf a Yh\]g Z h fY k]jz A Ufmbyi Wž]b K YI bJ YfgjhmcZ D]bbgnj Ub]U@M]Uñk\YfYg Ykcf\_YX ugUK D5 dfccZVYUKYf' H Yma Uff]YX cb 5i [ i gh %ž % ' , UbX \UK \*) nMfg hc[ Yh Yf" AUfnñj YX]cf]U kcf\_ Vb]b]oi YX ]b \Yd]b[ >Y dfYdUfY\]g]Kc Vcc\_g' H Ym\UK cbY XU [ \Yfž\]Y]bXž bYY \]bYH'

FYZfYbWg

QO5" C" @ 5h]b UbX " @A bYfž Hecke operators on  $\Gamma_0(m)$  žAUH "5bb"%" ) f% +\$% ( i % \$"

QQA"6YbYX]Mž Interview with Center for Oral Historyž ubi Ufn&(ž% - % 7\Ya ]M] <Y! ]M] Y: ci bXU]cbž D]TUKYd\]U"

OO" @A bYfž Discontinuous Groups and Automorphic Functionsž AUH Ya UjMj G fj Yng' Bc'J =ž 5a Yf]Mj AUH Ya UjMj GcVJhñDfcj ]XYbWž Fž% \* ("

QCK' 7" K" @ž Newforms and functional equationsž AUH "5bb" &% & f% +) tž&, ) i' %"

QCH'A]b Yž On automorphic forms on  $GL_2$  and Hecke operatorsž 5bb"AUH"- ( f% +%ž %ž (i% - "