

Department of Physics and Astronomy

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806\$(3 80 8:& /LQNDJH 5HSRUW  
9LVLW WR 8QLYHUVLW\ RI 0LVVRXUL  
6HSWHPEHU WR 2FWREHU

7RZDUGV %XLOGLQJ D 1HZ 80 8:& &ROOD  
6XVWDLQDEOH 7HDFKHUV 'HYHORSPHQW 7  
3KDVH 1DWXUDO 6FLHQFH 7HDFKHUV %D

6XEPLWWHG E\ 'U 0DUN +HUEHUW  
'HSDUWPHQW RI 3K\VLV DQG \$VWL  
8QLYHUVLW\ RI WKH :HVWHUQ &D

+RVW 'U 0HHUD &KDQGUDVHNKDU  
&XUDWRUV¶ 7HDFKLQJ 3URIHVVR  
'HSDUWPHQW RI 3K\VLV DQG \$VWL  
8QLYHUVLW\ RI 0LVVRXUL &ROXP

7KDQNV WR VXSSRUW IURP WKH 806\$(B\Q LQNDJ MFSURJUDP U  
8QLYHUVLW\ 08 &ROXPELD ZDV D VXFFHVVIXO DQG JRRG H  
VWD\ , YLVLWHG WKH 'HSDUWPHQW RI 3K\VLV DQG \$VWU  
VFKRRO DQG D\WVH\G H\G W:K/LQNDJH 3URJUDP DQQLYHUVDU

7KH PDLQ UHVRQ IRU P\ YLVLW ZDV WR PHHW ZLWK 3URI 0H  
WR HVWDEOLVK FROODERUDWLRQV LQ DGGUHVVLQJ WUDLQL  
VFLHQFH WHDFKHUV 6SHFLWRF D\KPDUHRH[S\KUH\LV\HL\VL\Z\KHU  
VHWXS D SHGDJRJLFDQ EDVH DQG VXVWDLQDEOH WHDFKHU  
VHUYL\G H\G V\WU D VFLHQFH SK\VLV D VFLHQFH WHDFKHUV  
WHDFKHUV WR GHOLYHU HIIHFWLYH WHDFKLQJ DQG OHDUQL  
WHFKQRORJ\ DQG RWKHU PRGHUQ DSSURDFKHV DQG H VW  
DQG LQWHUQDWLRQDOO\ WR VKDUH EHVW SUDFWLFHV LQ SK

,Q P\ ILUVW ZHHN RI YLVLW , KDG WKH SULYLOHJH WR PHHW  
ZLGH UDQJLQJ H[SHULHQFH LQ WKH HGXFDWLRQ RI € 7

)RU WKH UHVV RI WKH WKUHH ZHHN , DWWHQGHG OHFWX  
XQGHUJUDGXDW PDLQ VWUHP SURJUDP ZDV D IDLUO\ EL  
DWWHQGHG ZHHNO\ VHPLQDUV ZKLFK WKH\ KDYH IRU DOO W  
SK\VLV 7KH VHPLQDU VROH SXUSRVH ZDV WR VWLPXODWH  
RXW KRZ WKH\ PDQDJLQJ WKHLU VWXGLHV DQG SURYLGH V  
FDUHHU SDWKV LQ SK\VLV , GHILQLWHO\ VHH VRPHWKLQJ C  
DW 8:& ,W ZLOO DOVR EXLOG FORVHU UHODWLRQV KLS EHWZ  
DQG VKRZ WKDW WKH GHSDUWPHQW FDUHV (DHPXHQWKUHP 0F  
SUVHUYLFH SK\VLV FODVV 3K\VLV 7KLV LV D FRXUVH  
PDMRUV LQ D KLVVLRQ RULHQWHG FODVV WKDW KDV EH  
,QTXLU\ DQG PRGHOLQJ WHFKQLTXHV DUH XVHG LQ WKLV F  
PRVW , KDG XVHIXO GLVFXVLRQ ZLWK WKH HDFK RWLW, ZLW  
DGDSW PRVW RI WHDFKLQJ RQ SUH HODERUDWLRQ HOSLUDJ FK  
8:& 7KH ODVW ZHHN RGEVFXVLRQV RYH DERUDWLRQ EHWZ  
'HSDUWPHQWV RI 3K\VLV DQG \$VWURQRP\ RI 08 DQG (GXFD  
'LVWULFWV LQ :HVWHUQ &DSH SURGHOWRURJUVV HQRBBQ  
SKDVH QDWXUDVLFVHQFH W

7KH H[FKDQJH SURJUDP KDV DOORZHG PH WKH RSSRUWXQLW  
ZLWK VWDII DQG VWXGHQWV DW WKH 0LVVRXUL 8QLYHUVLW  
ZLWK SK\VLV ZKR DUH HQWKXVLDVWLF DQG SDVVLRQDW  
ZLOOLQJ WR VKDUH ZLWK PH WKHLU H[SHULHQFH DQG NQRZ  
VXVWDLQDEOH GHYHORSPHQW WUDLQLQJ SURJUDP IRU WHDF  
WR FRODERUDWH ZLWK PH RQ WKLV SHURJUDP ZLWK 3  
&KDQGUDVHNKDU DQG KHU FROHDJXHV OHDG WR WKH HVV  
'HSDUWPHQWV RI 3K\VLV DQG \$VWURQRP\ RI 08 DQG 8:& D  
'LVWULFWV LQ :HVWHUQ &DSH RQ D WKUHH\H DU SLORW SU  
3KDVH 1DWXUDO 6FLHQFH 7HDFKHUV ,W LV HQYLVDJHG WKD  
RQ WKH WHDFKLQJ DQG OHDUQLQJ RI SK\VLV LQ WKH VHQ  
VFKRROV , EHOLHYH WKLV LV WKH EHJLQQLQJ RI D ORQJ DQ

LQ WHUPV RI WKH SODQQLQJ DQG WKH DUUDQJHPHQWV PDC  
&KDQGUDRINKRVLQJ PH KHERIDPHDPLW/PDHLQ &ROXPELD  
0LVVRXUL SOHDWKH'HSDDWPHQR RI 3K\VLV DQG \$VWURQ  
FDPSXV IRU WKH XVH RI WKHLU IDFLOLWLHV