

# Contrast discrimination and global form perception in primary open-angle glaucoma (POAG) and primary angle closure glaucoma (PACG)

Supplementary file 1

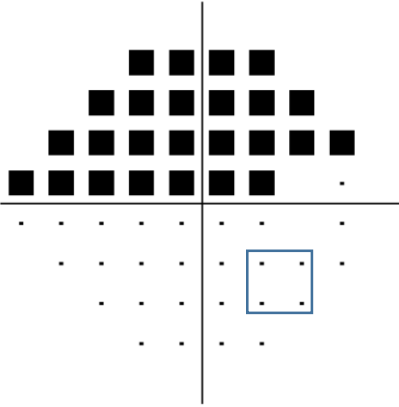
# Pattern deviation plots of included POAG and PACG participants

## Note:

- The pattern deviation plots are presented in matched pairs of POAG and PACG
- The age of the participants and duration since diagnosis are mentioned in years.
- The Participant Identification numbers (ID) are mentioned in the right corner of each pattern deviation plot

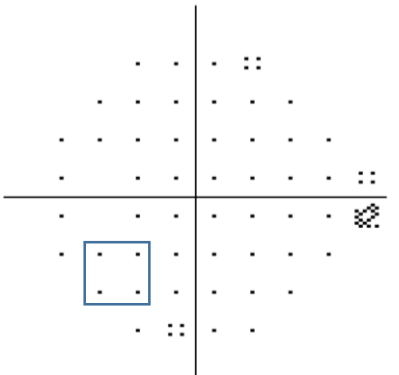
# POAG

## Pattern Deviation



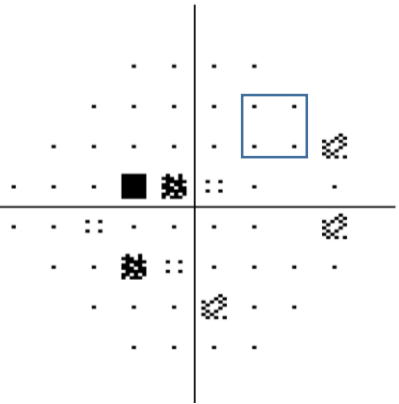
MD: -13.63  
Age: 68  
Duration: 0.5

ID: 1



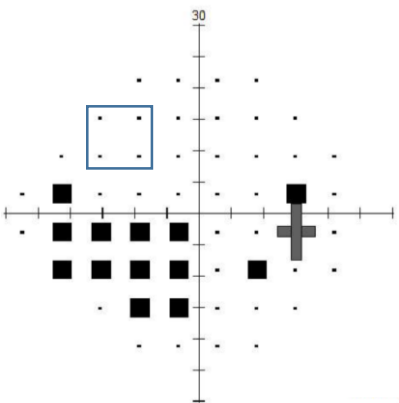
MD: -2.56  
Age: 65  
Duration: 1.5

ID: 2



MD: -2.34  
Age: 62  
Duration: 8.5

ID: 3

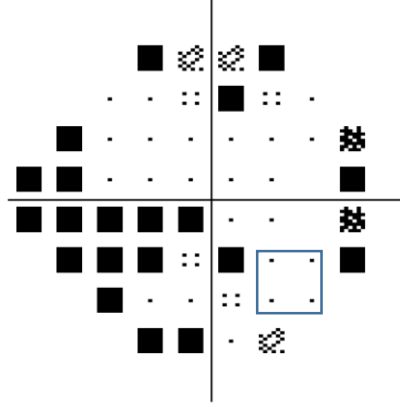


MD: -7.04  
Age: 56  
Duration: 3

ID: 4

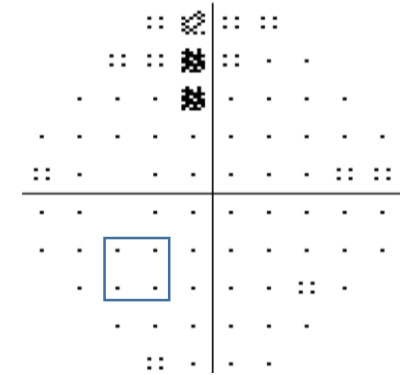
# PACG

## Pattern Deviation



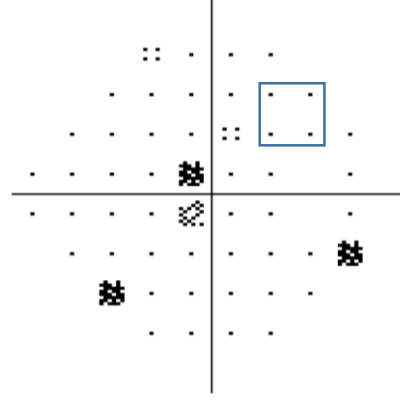
MD: -11.09  
Age: 70  
Duration: 4.75

ID: 21



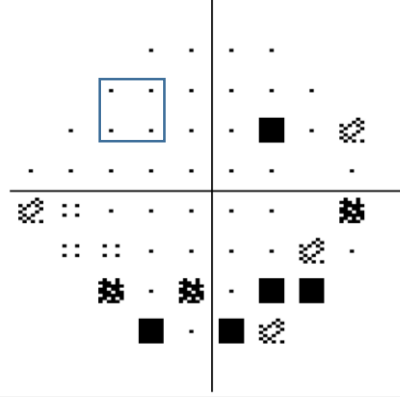
MD: -2.94  
Age: 68  
Duration: 20.1

ID: 22



MD: -1.37  
Age: 62  
Duration: 0

ID: 23



MD: -7.26  
Age: 67  
Duration: 1.75

ID: 24

# POAG

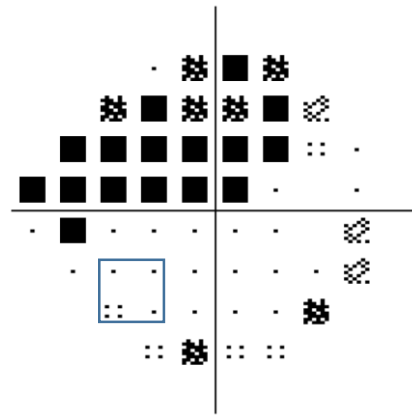
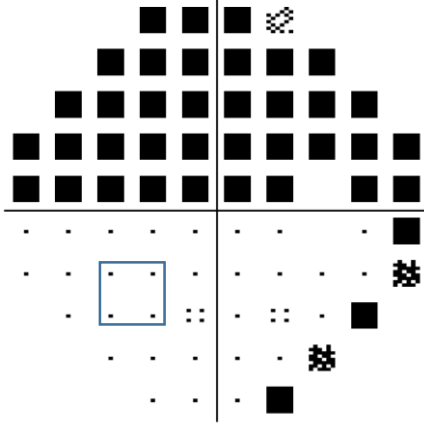
# PACG

## Pattern Deviation

## Pattern Deviation

MD: -12.88  
Age: 77  
Duration: 5.5

MD: -9.42  
Age: 70  
Duration: 17.25

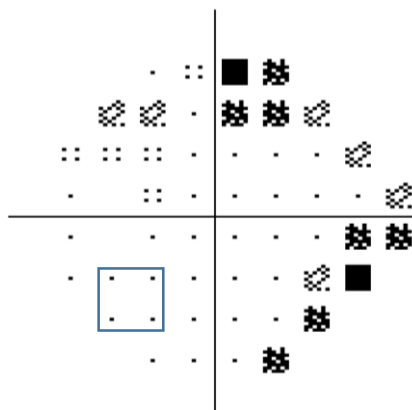
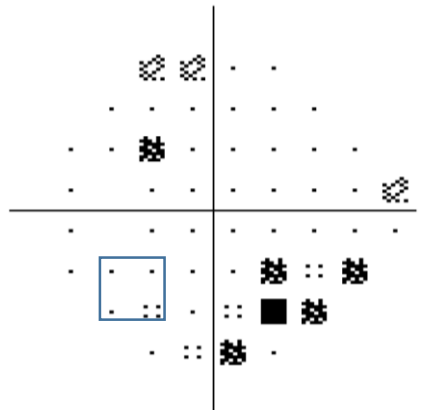


ID: 5

ID: 25

MD: -2.69  
Age: 61  
Duration: 2.75

MD: -3.73  
Age: 75  
Duration: 0.08

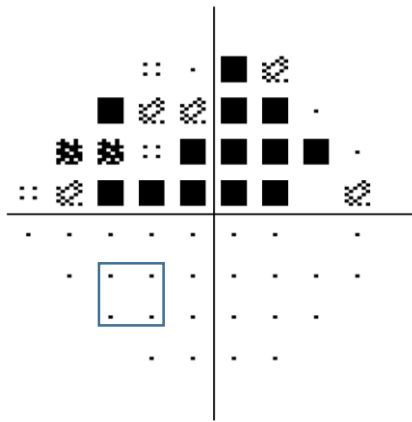
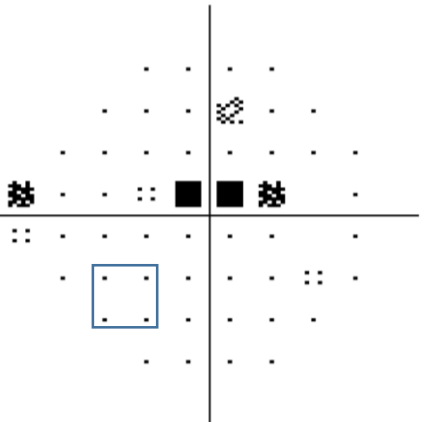


ID: 6

ID: 26

MD: -4.01  
Age: 70  
Duration: 0.75

MD: -5.74  
Age: 73  
Duration: 0

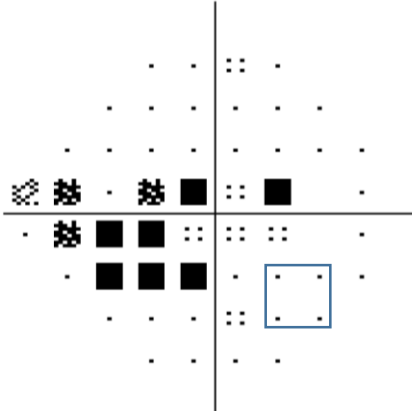
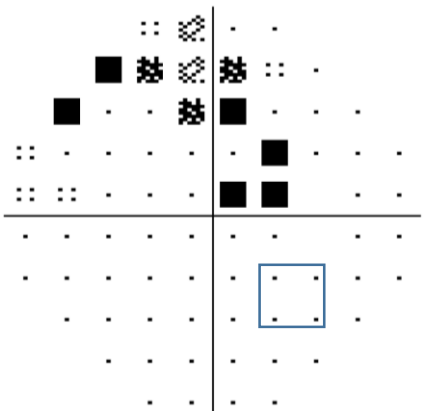


ID: 7

ID: 27

MD: -4.06  
Age: 73  
Duration: 7.5

MD: -2.52  
Age: 63  
Duration: 0.5

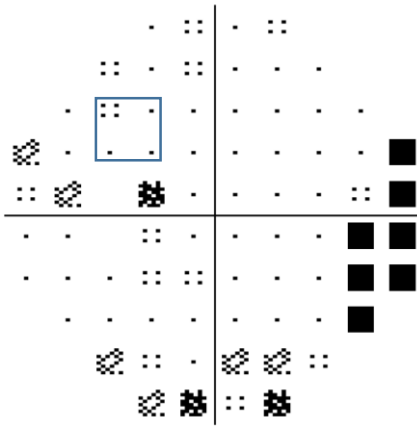


ID: 8

ID: 28

# POAG

## Pattern Deviation

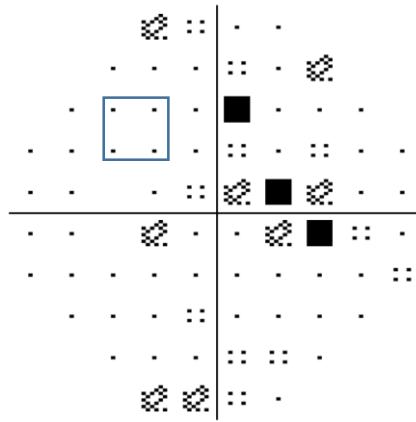


MD: -6.13  
Age: 65  
Duration: 1

ID: 9

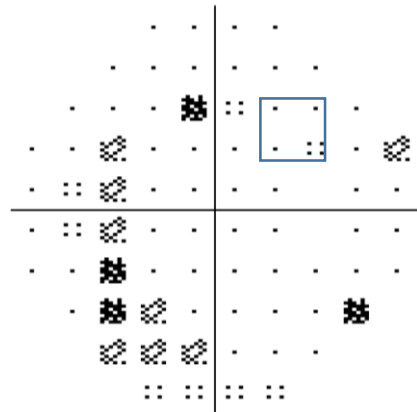
# PACG

## Pattern Deviation



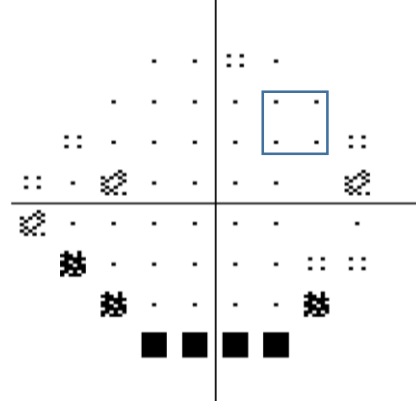
MD: -5.18  
Age: 71  
Duration: 0.25

ID: 29



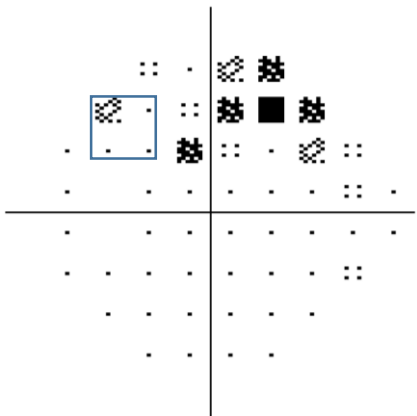
MD: -2.23  
Age: 75  
Duration: 11.5

ID: 10



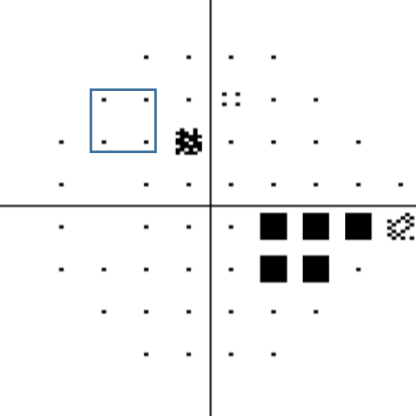
MD: -4.03  
Age: 63  
Duration: 5.5

ID: 30



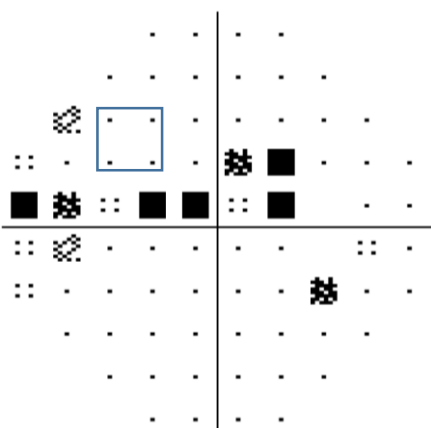
MD: -1.50  
Age: 57  
Duration: 1.5

ID: 11



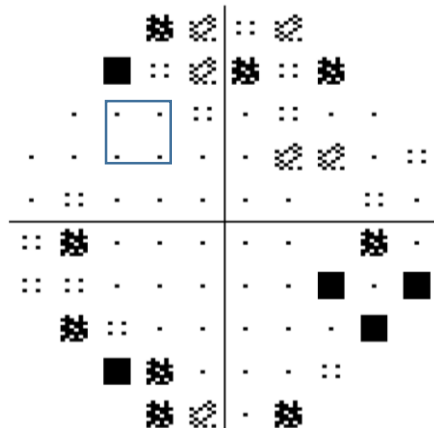
MD: -2.16  
Age: 63  
Duration: 8

ID: 31



MD: -4.48  
Age: 66  
Duration: 17

ID: 12



MD: -4.81  
Age: 58  
Duration: 8.75

ID: 32

# POAG

## Pattern Deviation

MD: -4.24  
Age: 71  
Duration: 1

ID: 13

MD: -13.47  
Age: 76  
Duration: 0.92

ID: 14

MD: -16.85  
Age: 58  
Duration: 0.08

ID: 15

MD: -9.26  
Age: 66  
Duration: 0.92

ID: 16

# PACG

## Pattern Deviation

MD: -3.23  
Age: 69  
Duration: 15.25

ID: 33

MD: -16.31  
Age: 52  
Duration: 0.92

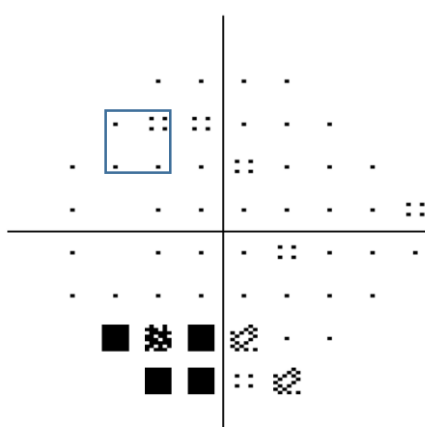
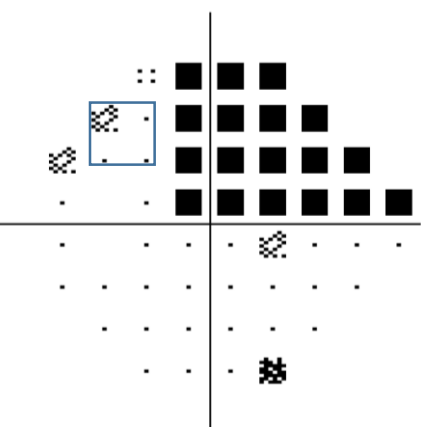
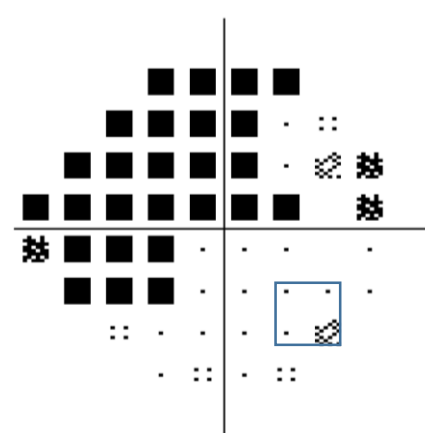
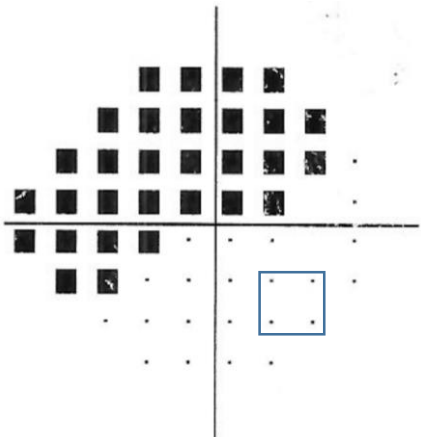
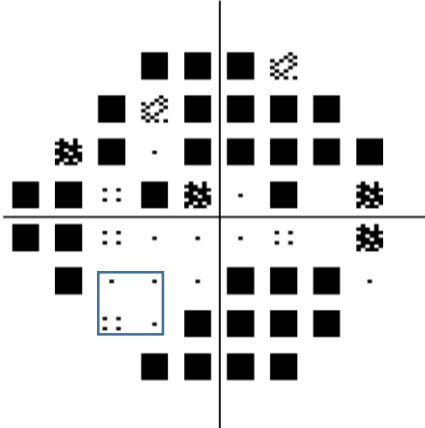
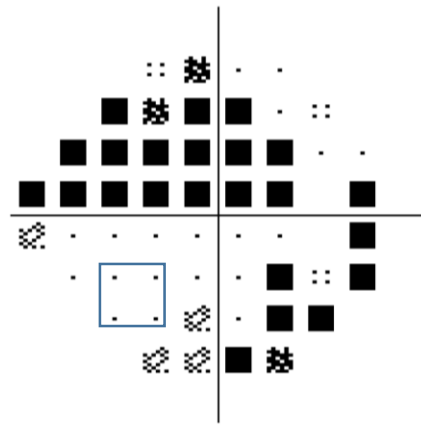
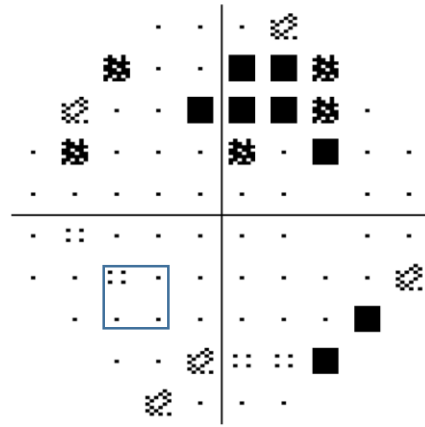
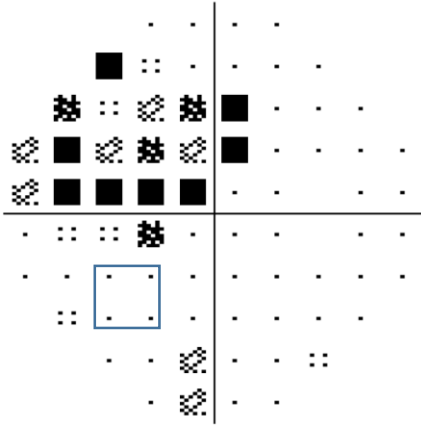
ID: 34

MD: -16.42  
Age: 65  
Duration: 1.5

ID: 35

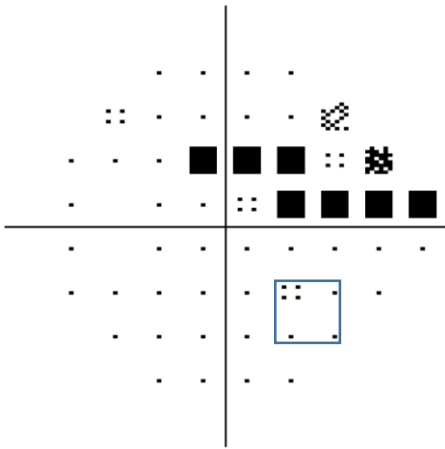
MD: -8.20  
Age: 71  
Duration: 9.5

ID: 36



POAG

Pattern Deviation

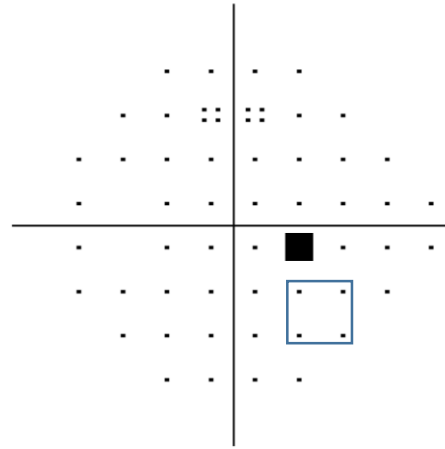


MD: -3.87  
Age: 68  
Duration: 0.5

ID: 17

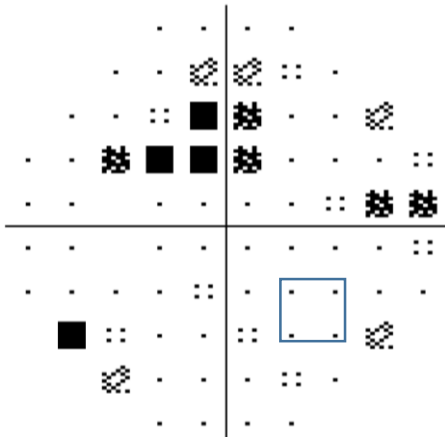
PACG

Pattern Deviation



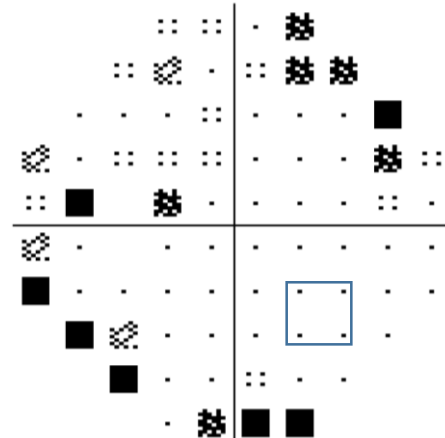
MD: -3.80  
Age: 70  
Duration: 27.25

ID: 37



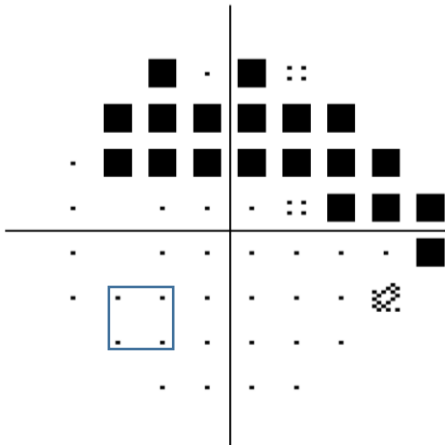
MD: -6.24  
Age: 60  
Duration: 6

ID: 18



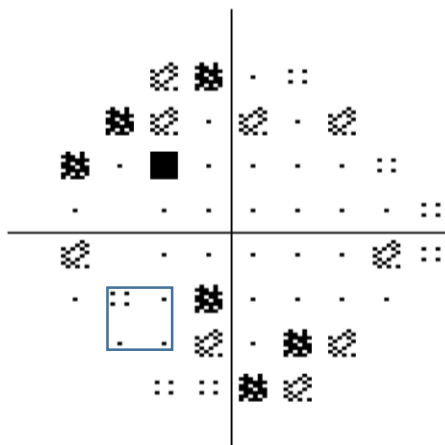
MD: -5.16  
Age: 55  
Duration: 0.92

ID: 38



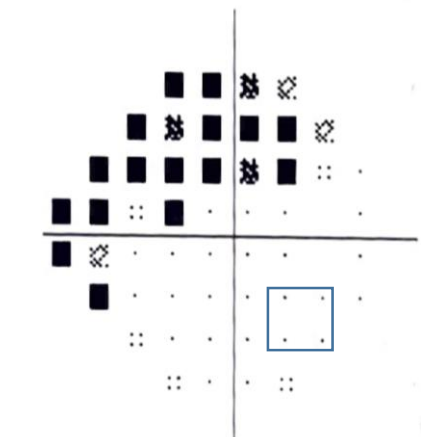
MD: -7.92  
Age: 61  
Duration: 17

ID: 19



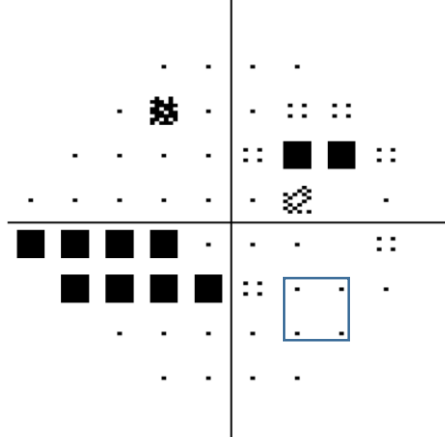
MD: -5.04  
Age: 74  
Duration: 1.75

ID: 39



MD: -5.14  
Age: 56  
Duration: 15.5

ID: 20



MD: -5.53  
Age: 71  
Duration: 7

ID: 40

# ANCOVA Results

We conducted an ANCOVA analysis with age, eccentricity, duration since diagnosis, and phakic/pseudophakic status as covariates for steady, pulse, and form perception tasks. The ANCOVA model for the steady pedestal task showed a significant overall fit ( $F(6, 113) = 13.83, p < 0.01$ ), with an adjusted R-squared of 0.4. Significant influencers of threshold levels included age ( $p < 0.01$ ) and eccentricity ( $p < 0.01$ ). Both POAG ( $p < 0.01$ ) and PACG ( $p = 0.01$ ) groups exhibited higher threshold levels than the control group, with coefficients of 0.18 and 0.13, respectively.

In the pulsed pedestal task, the model demonstrated a significant overall fit ( $F(6, 113) = 14.03, p < 0.01$ ), with an adjusted R-squared of 0.396. Significant influencers of threshold levels included age ( $p < 0.01$ ) and eccentricity ( $p < 0.01$ ). Similarly, both POAG ( $p < 0.01$ ) and PACG ( $p = 0.01$ ) groups had higher threshold levels than the control group, with coefficients of 0.21 and 0.17, respectively.

Regarding the form perception task, the ANCOVA model indicated a significant overall fit ( $F(6, 113) = 18.58, p < 0.01$ ), with an adjusted R-squared of 0.47. Unlike the contrast discrimination tasks, although eccentricity ( $p < 0.01$ ) was a significant influencer, age ( $p = 0.13$ ) was not significant. Both POAG ( $p < 0.01$ ) and PACG ( $p < 0.01$ ) groups exhibited higher threshold levels than the control group, with coefficients of 25.23 for POAG and 15.86 for PACG. Duration since diagnosis and phakic status were not significant influencers for either contrast discrimination or form perception tasks.