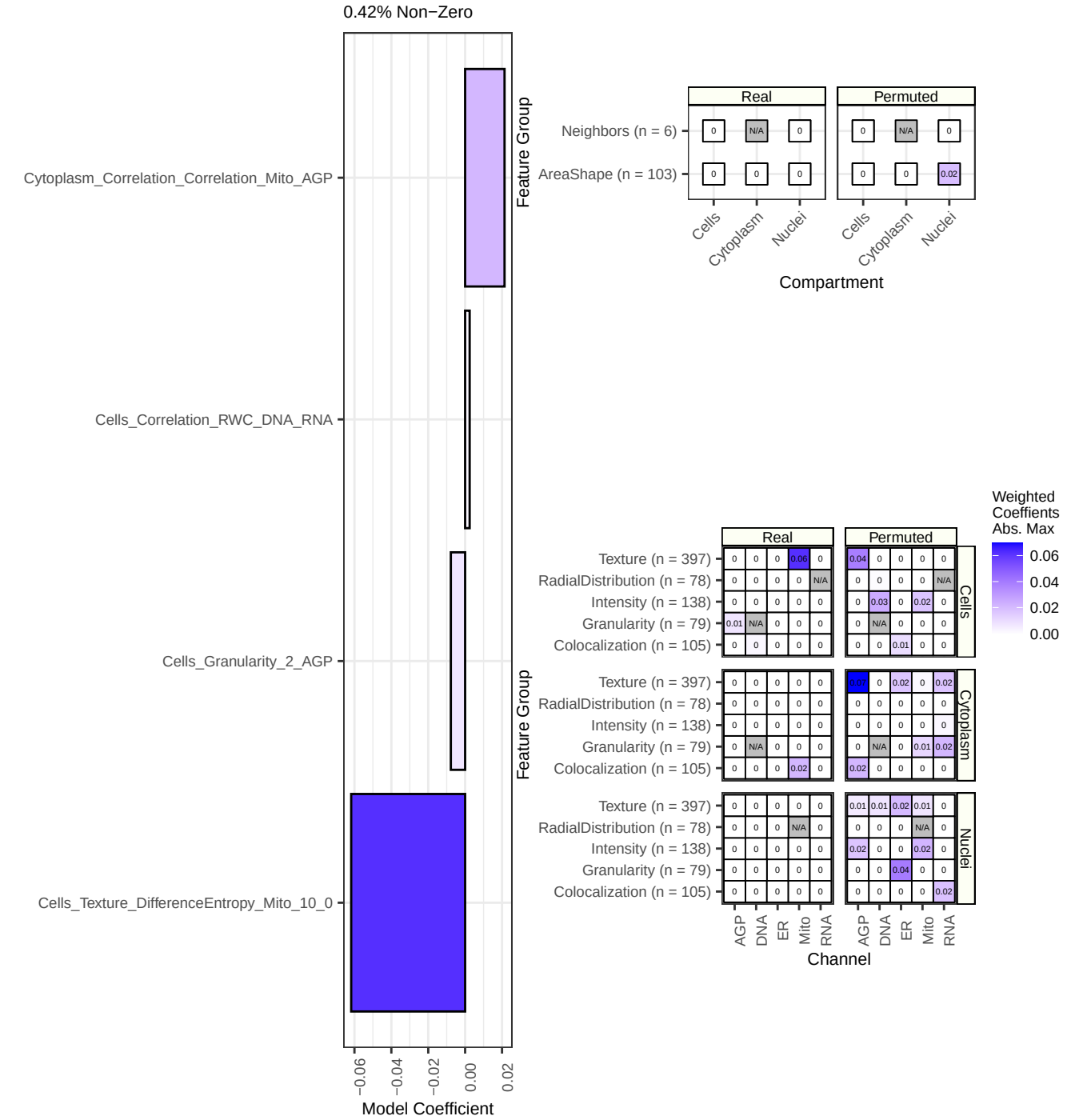
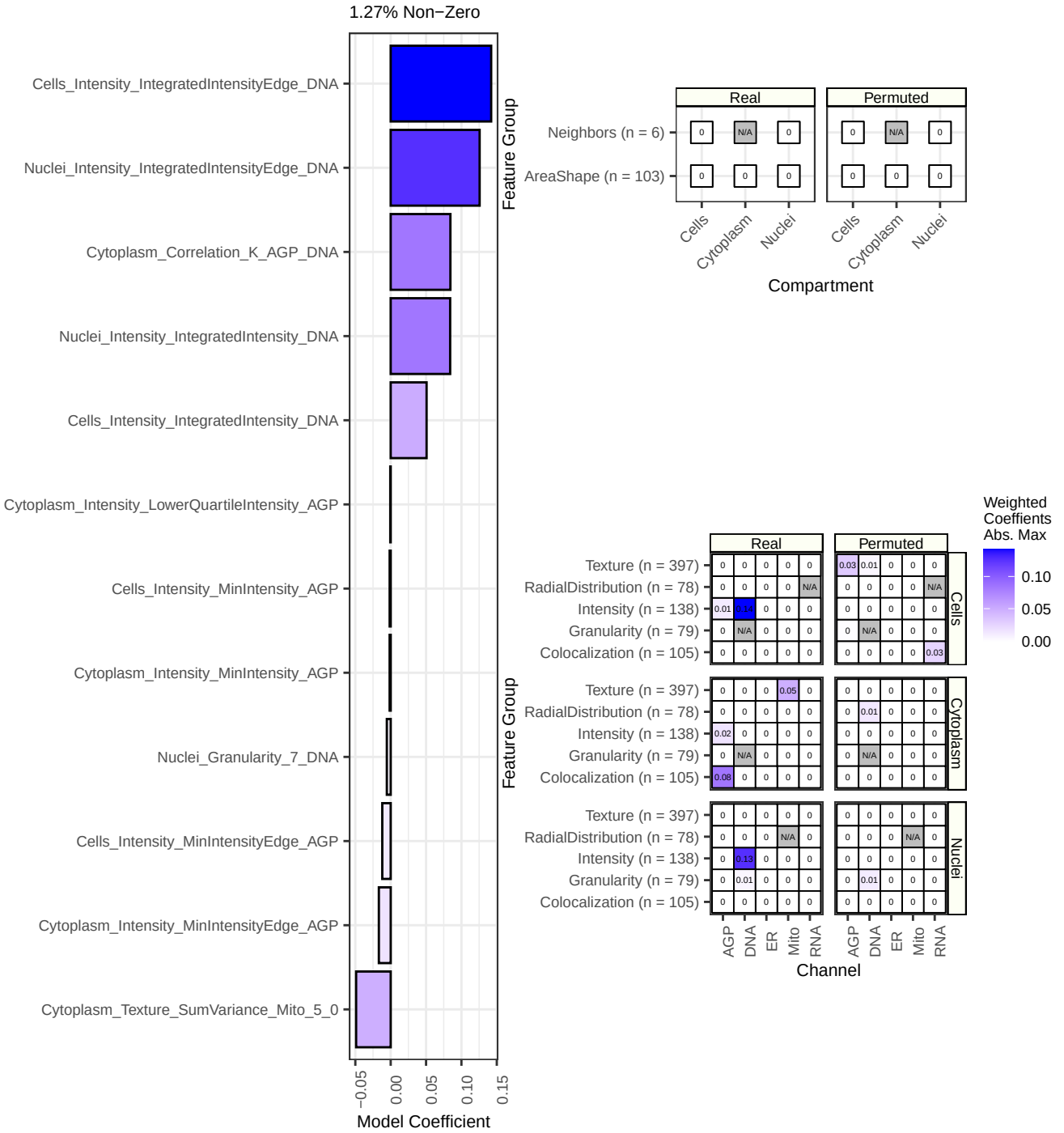
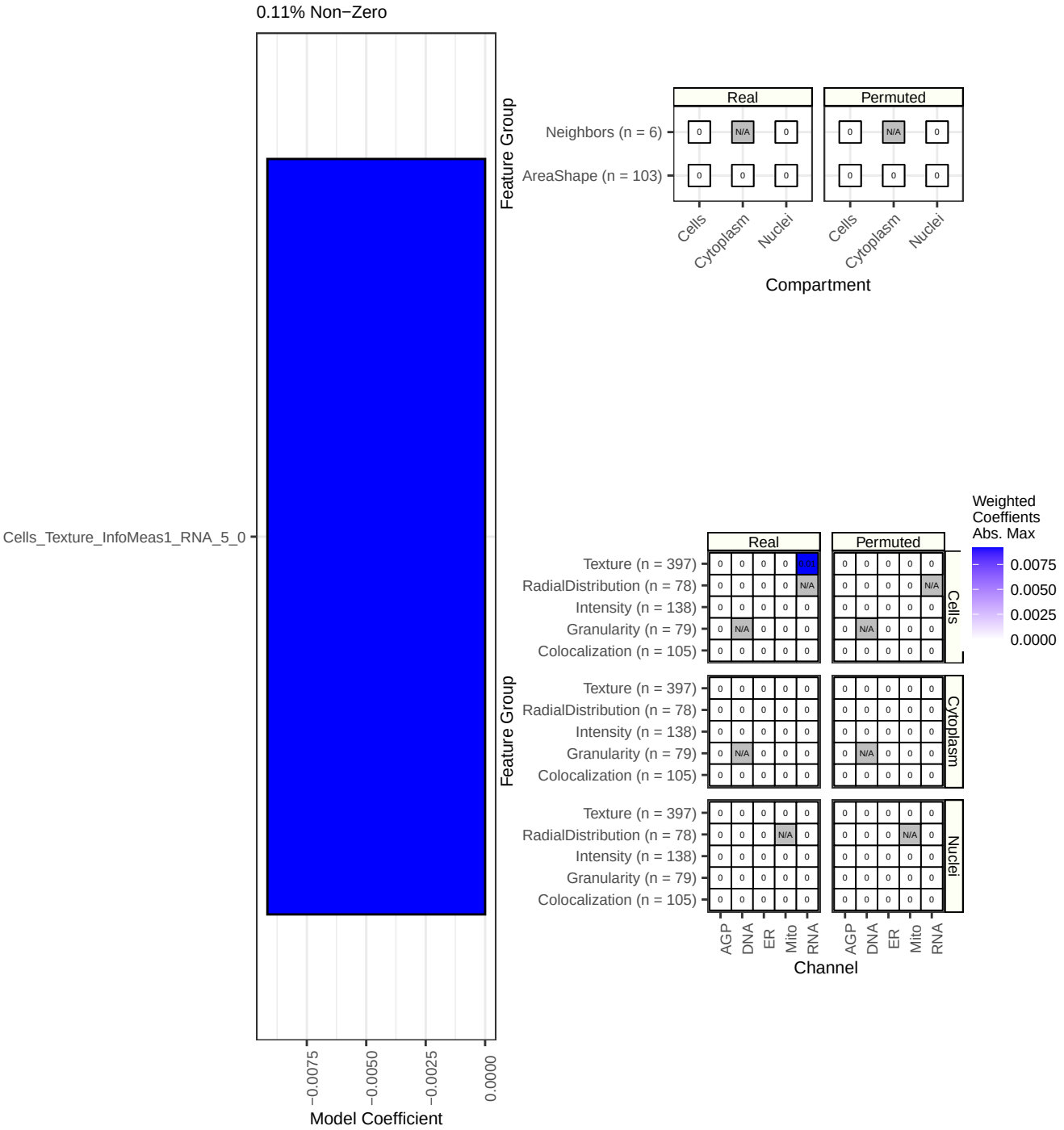
ALL − % High gH2AX Spots



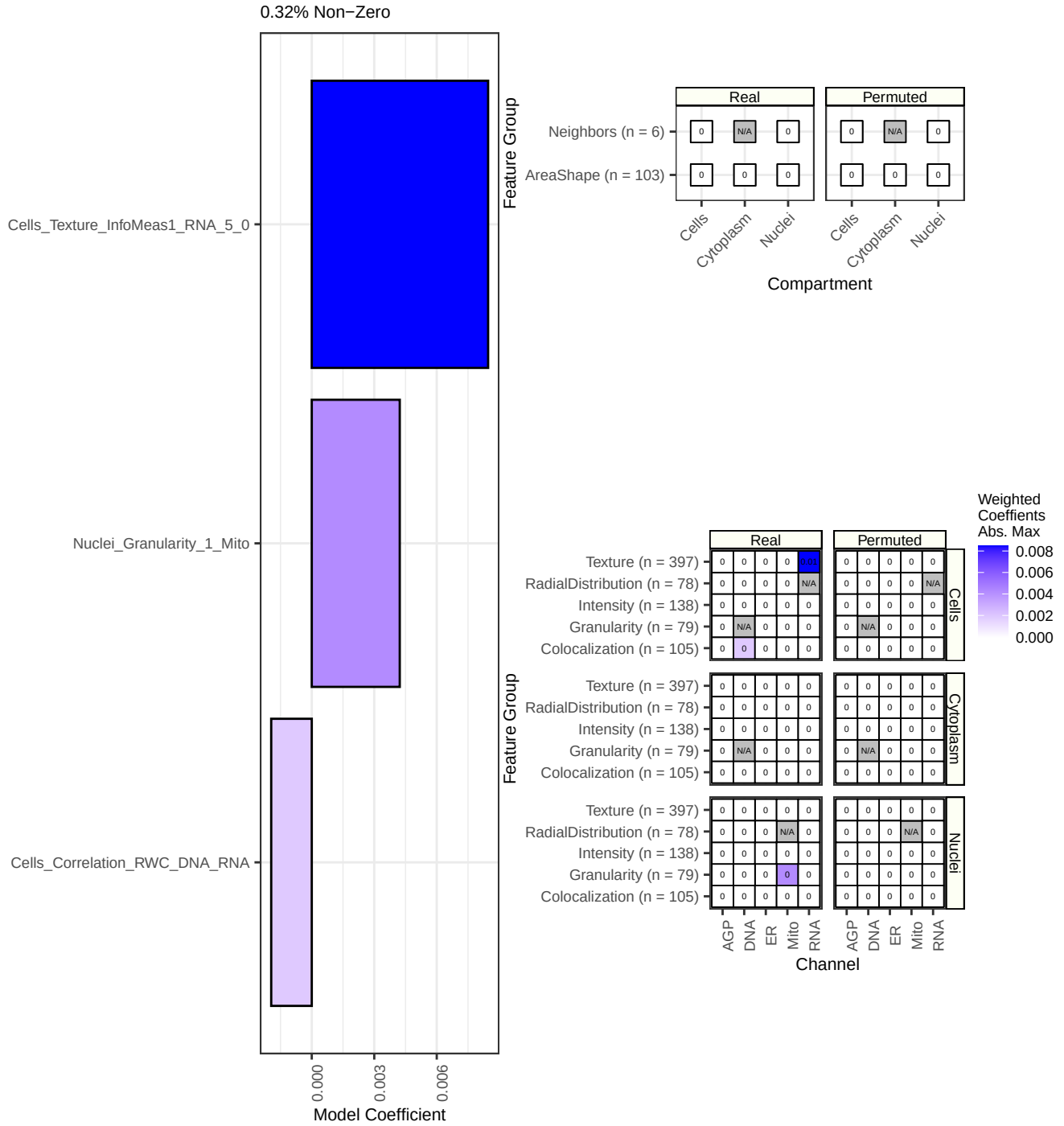
ALL − Polynuclear



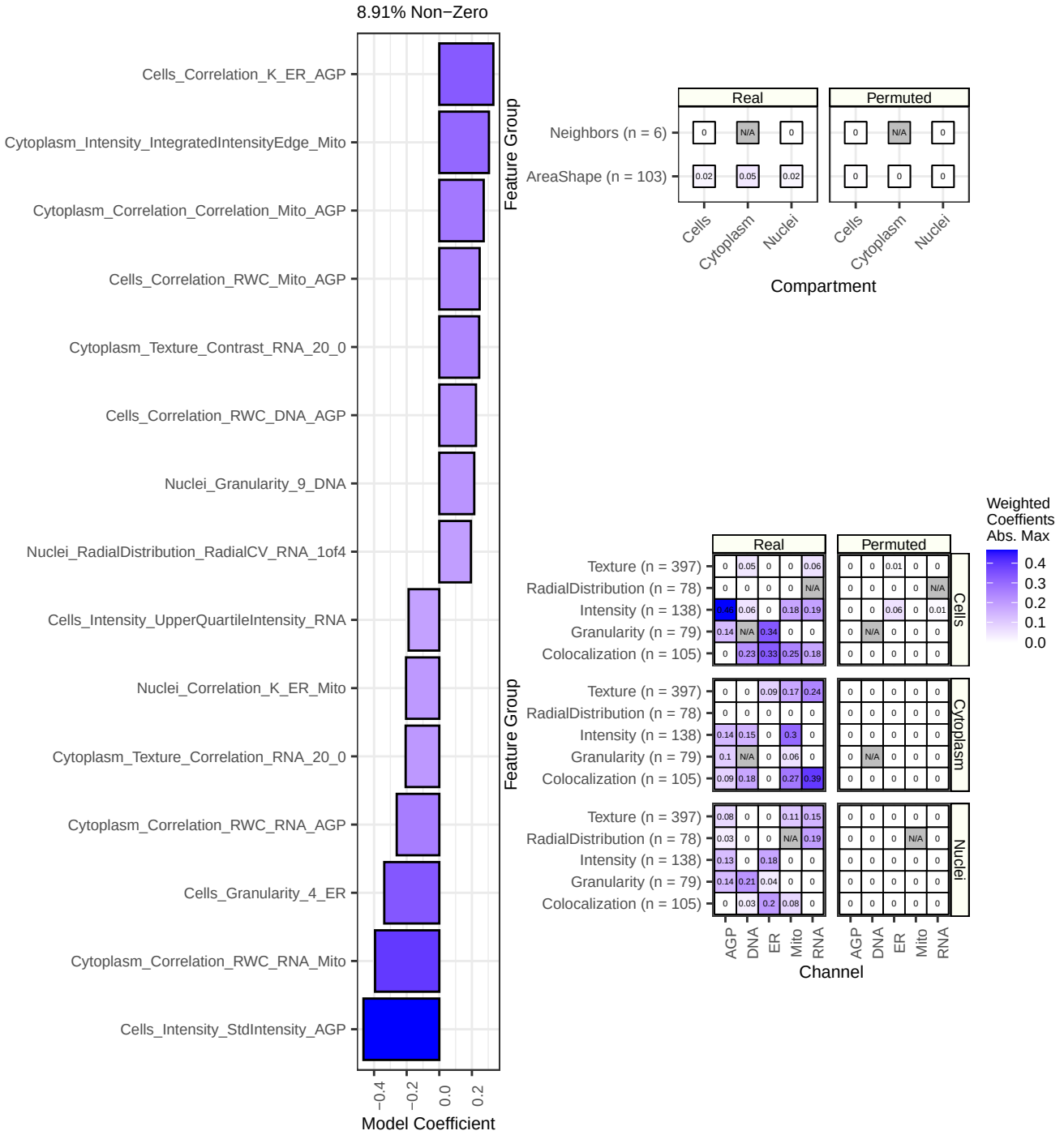
ALL − Polyploid



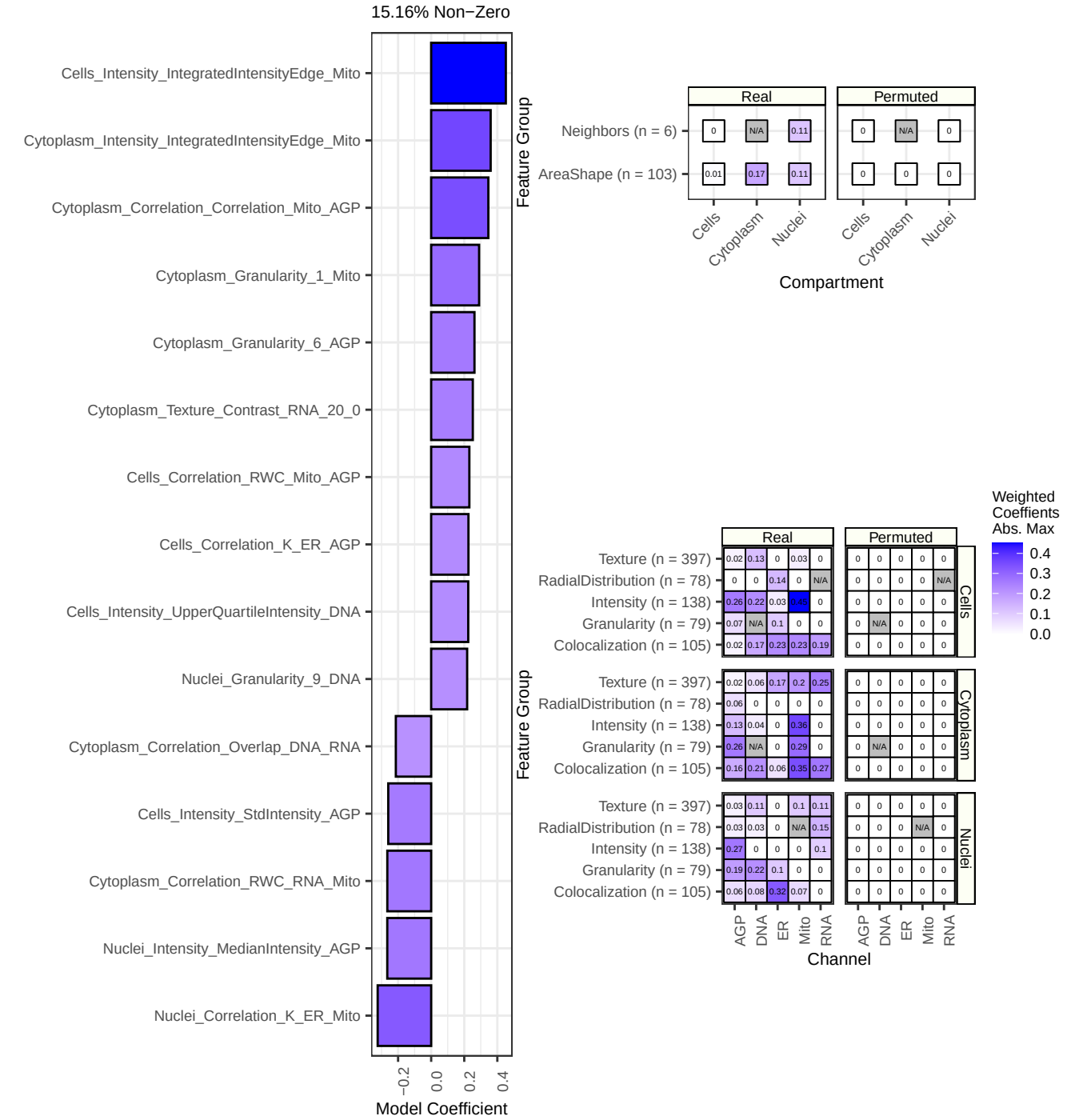
ALL − # cells


0.32% Non−Zero
Cells_Texture_InfoMeas1_RNA_5_0
Nuclei_Granularity_1_Mito
Cells_Correlation_RWC_DNA_RNA
0.000
0.003
0.006
Model Coefficient
Feature Group
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel
Weighted Coeffients Abs. Max
0.008
0.006
0.004
0.002
0.000

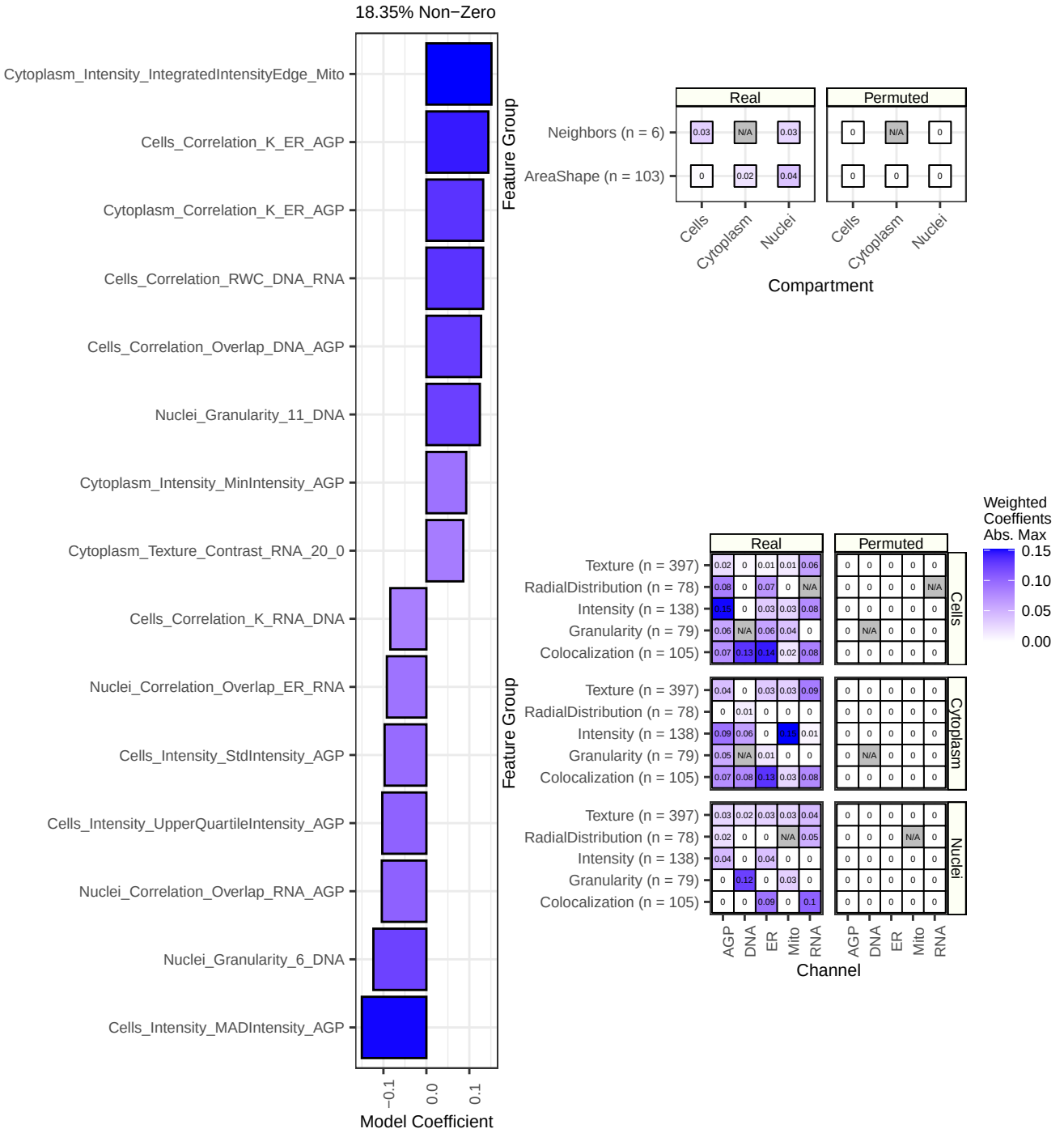
ALL − # of gH2AX Spots



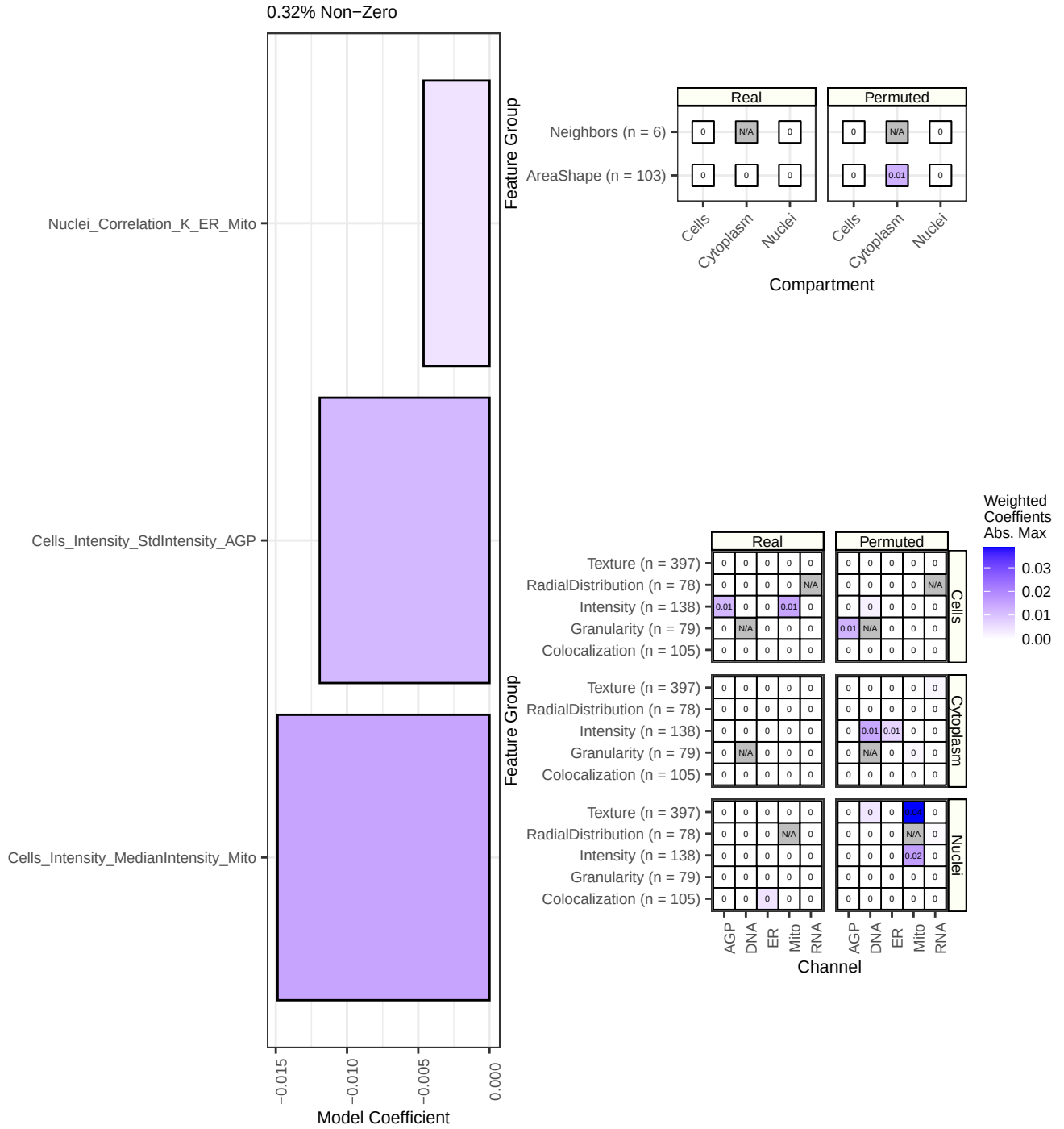
ALL − # of gH2AX Spots per Area of Nucleus



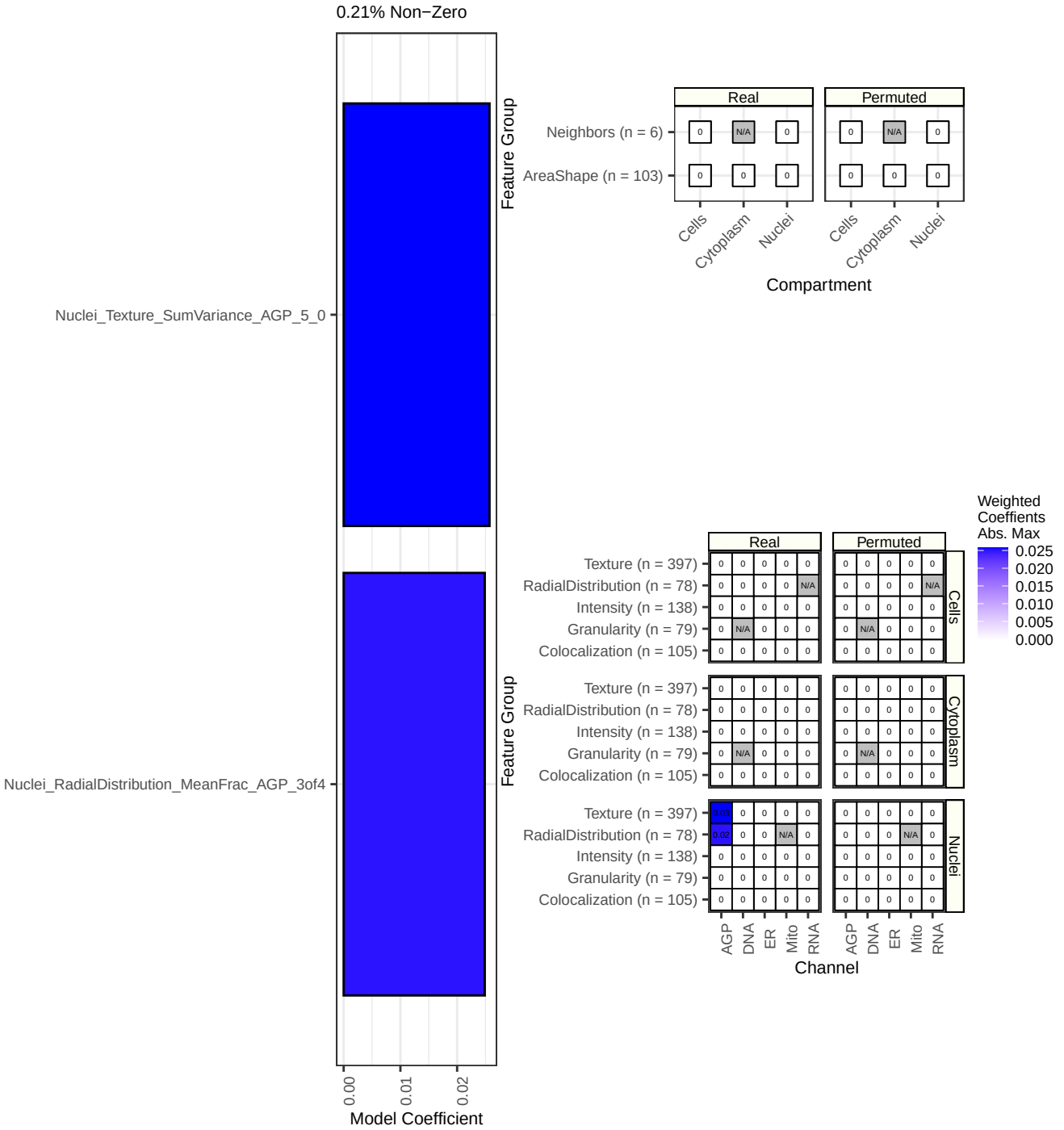
ALL − Nucleus Area



ALL − Nucleus Roundness

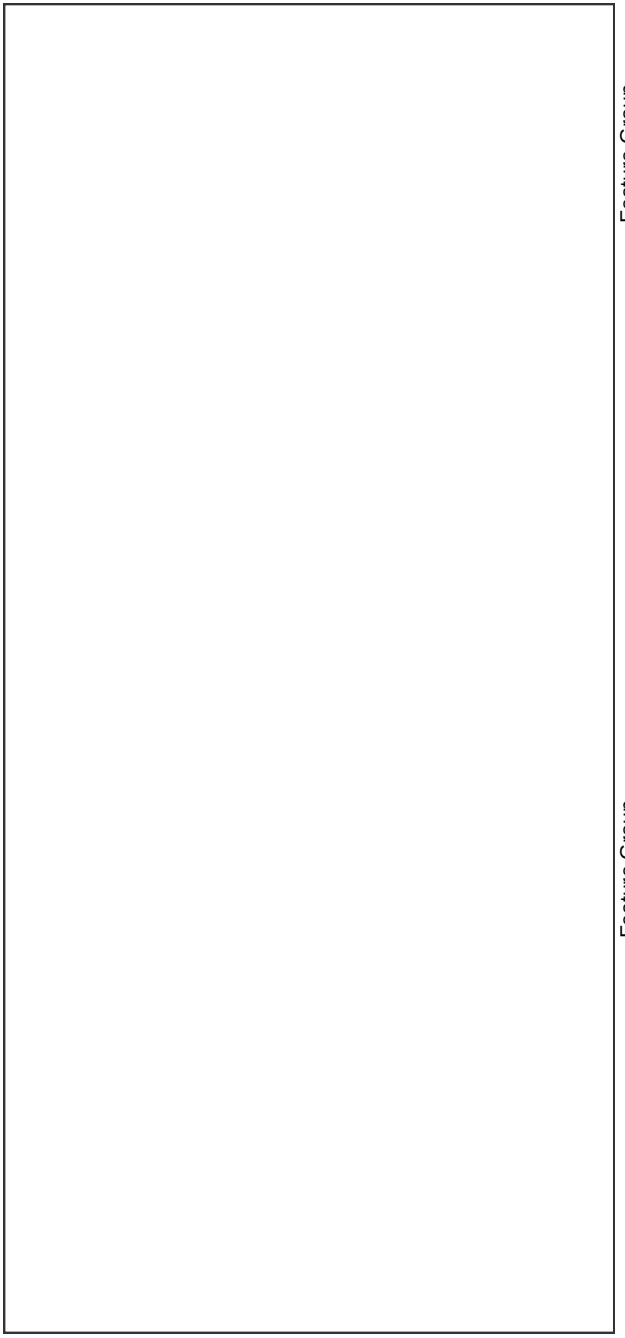


CC − % early M

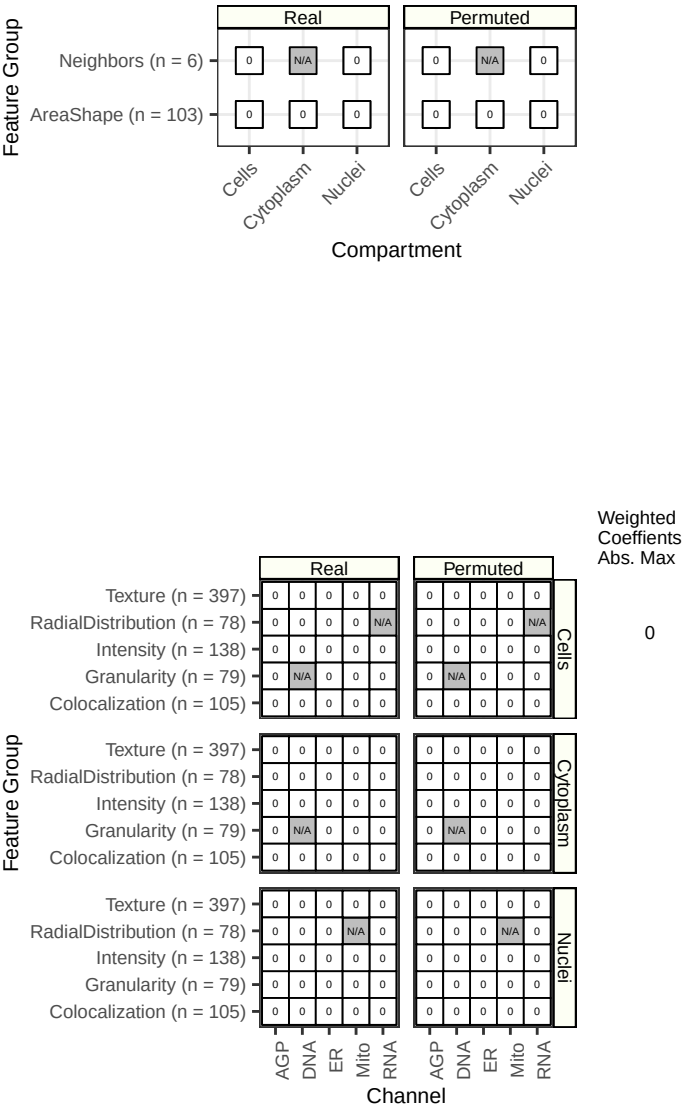

0.21% Non−Zero
Nuclei_Texture_SumVariance_AGP_5_0
Nuclei_RadialDistribution_MeanFrac_AGP_3of4
Feature Group
0.00
0.01
0.02
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel
Weighted Coeffients Abs. Max
0.025
0.020
0.015
0.010
0.005
0.000

CC − % G1

0% Non−Zero

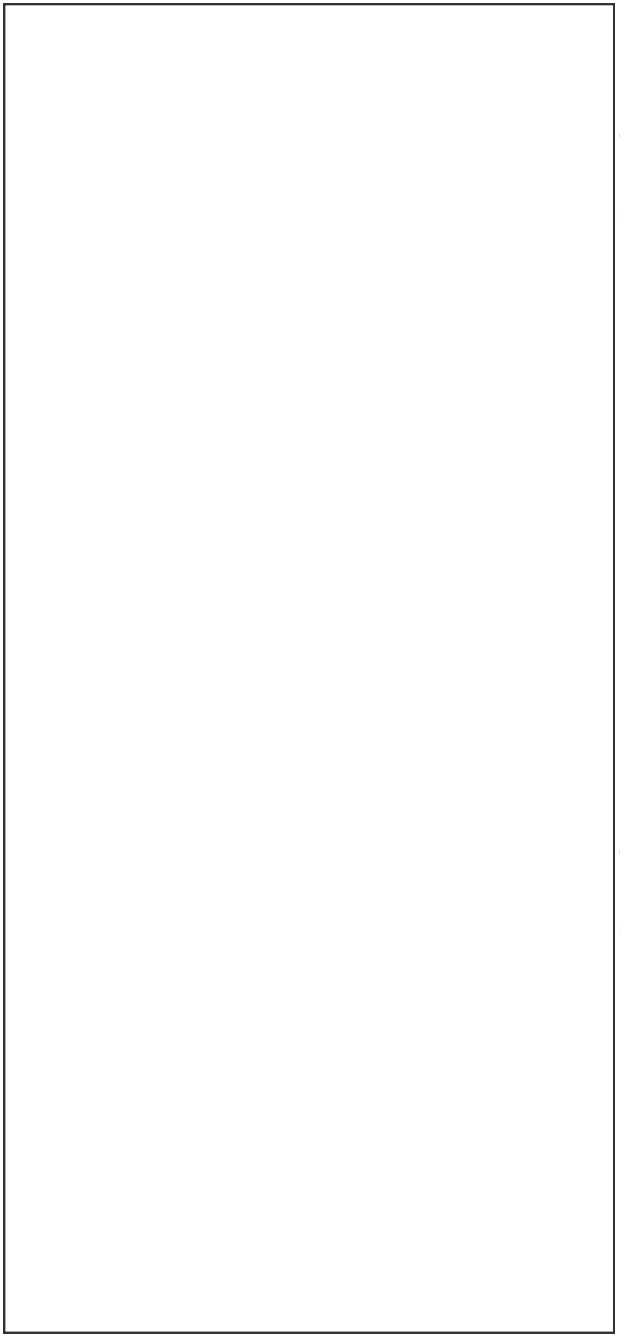


Model Coefficient

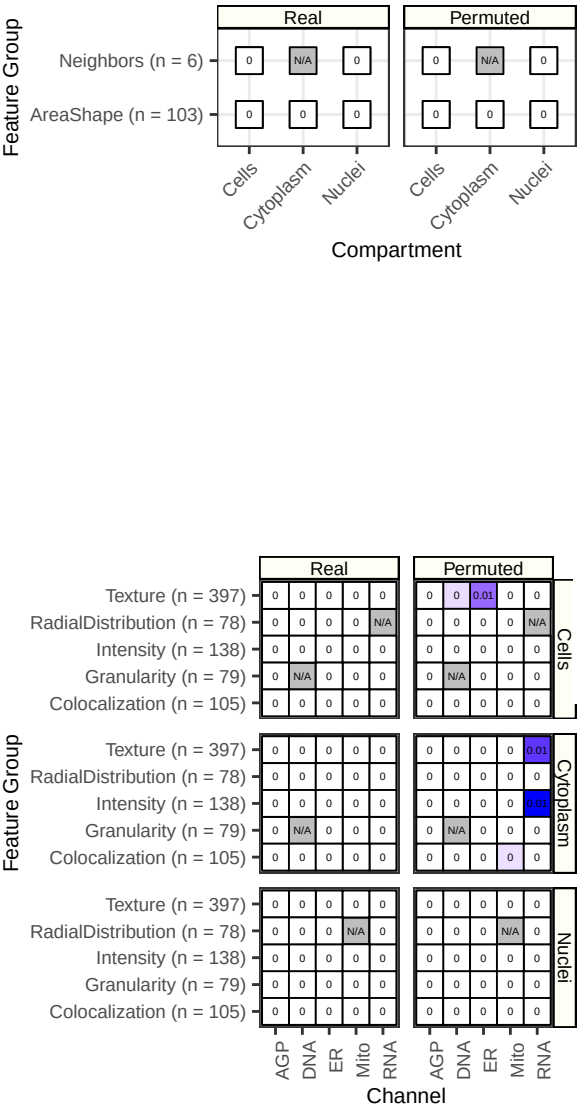


CC − % G2

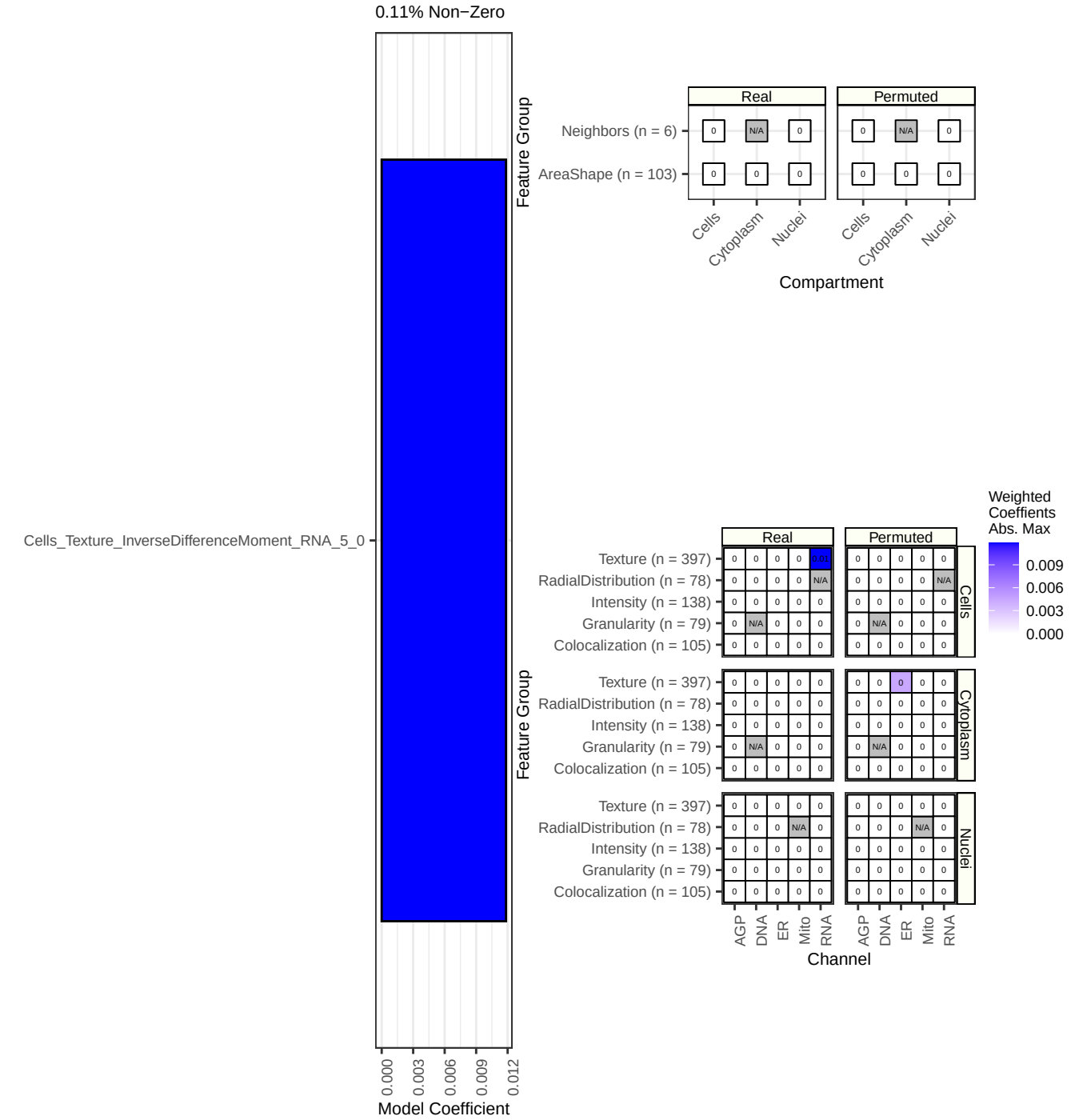
0% Non−Zero



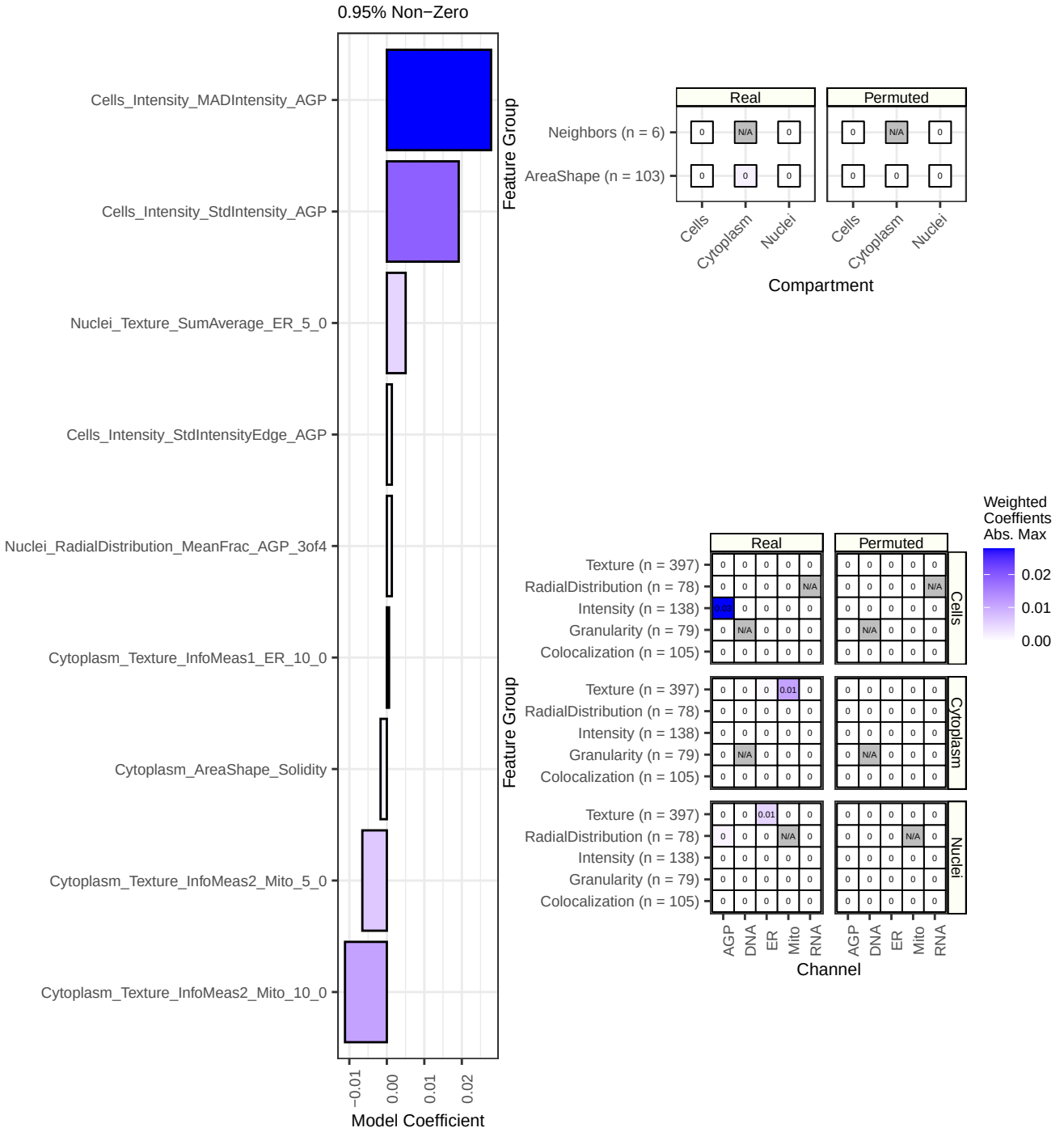
Model Coefficient



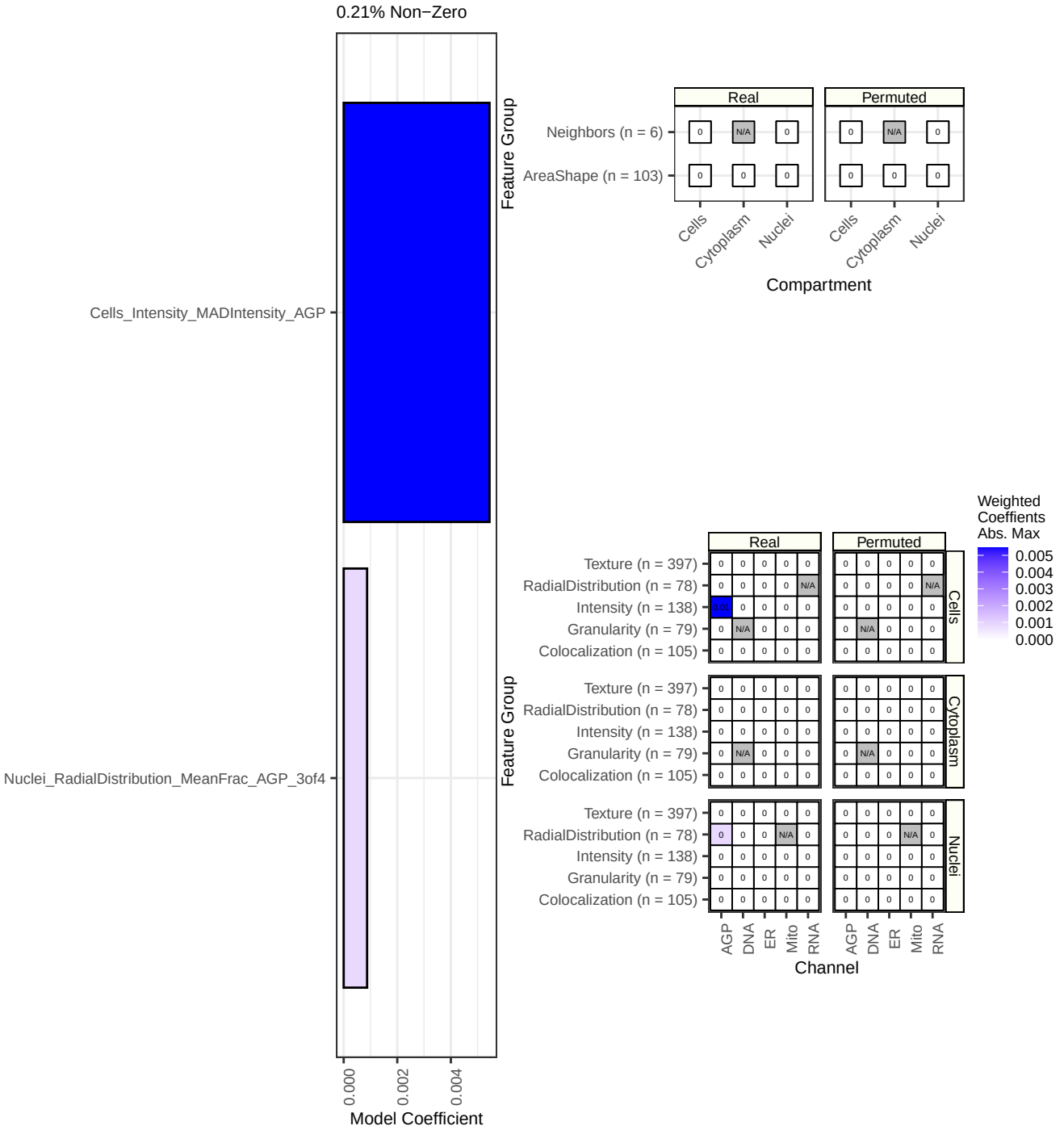
CC − % High gH2AX spots



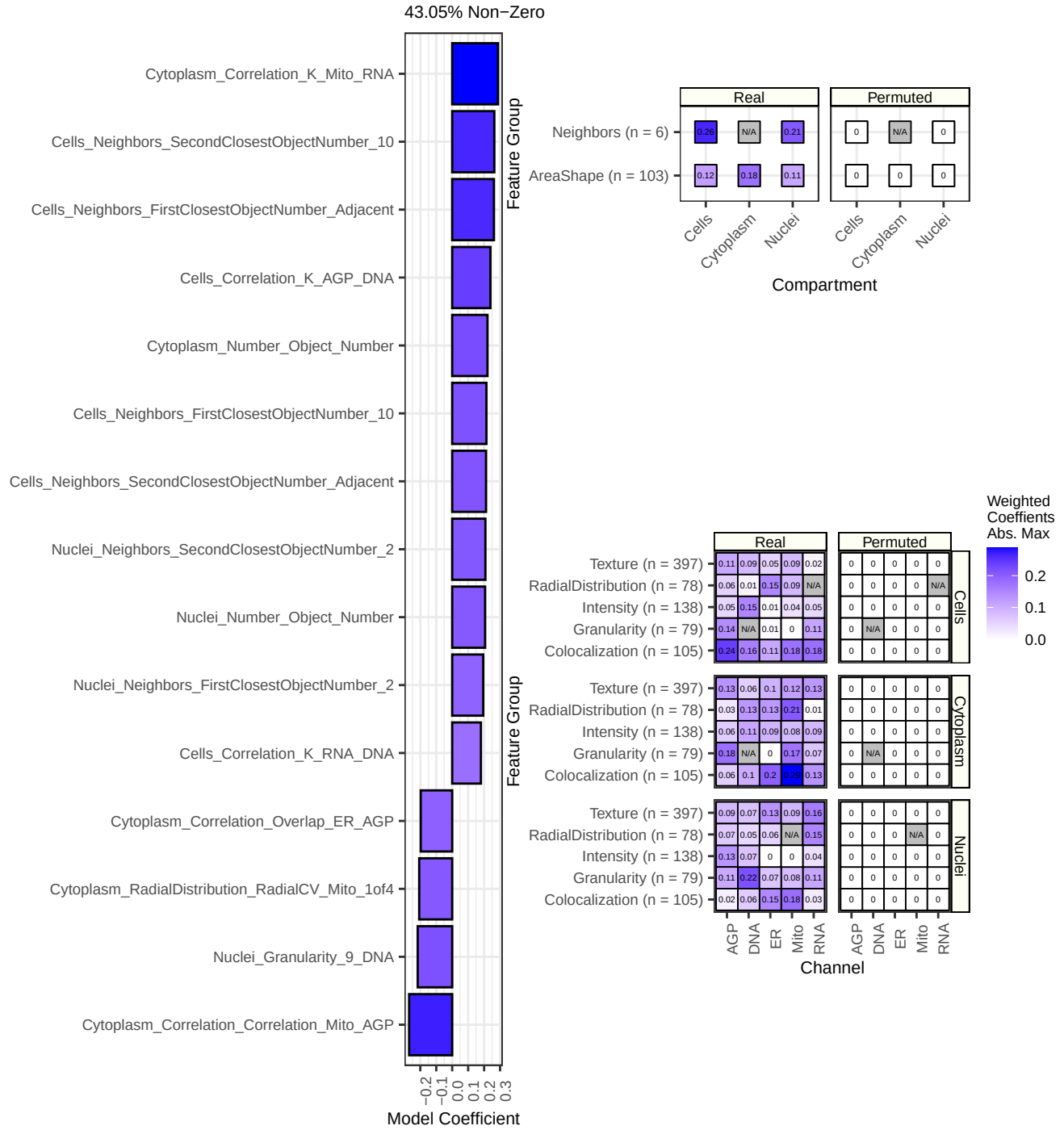
CC − % Late M


0.95% Non−Zero
Cells_Intensity_MADIntensity_AGP
Cells_Intensity_StdIntensity_AGP
Nuclei_Texture_SumAverage_ER_5_0
Cells_Intensity_StdIntensityEdge_AGP
Nuclei_RadialDistribution_MeanFrac_AGP_3of4
Cytoplasm_Texture_InfoMeas1_ER_10_0
Cytoplasm_AreaShape_Solidity
Cytoplasm_Texture_InfoMeas2_Mito_5_0
Cytoplasm_Texture_InfoMeas2_Mito_10_0
−0.01
0.00
0.01
0.02
Model Coefficient
Feature Group
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Weighted Coeffients Abs. Max
0.02
0.01
0.00
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel

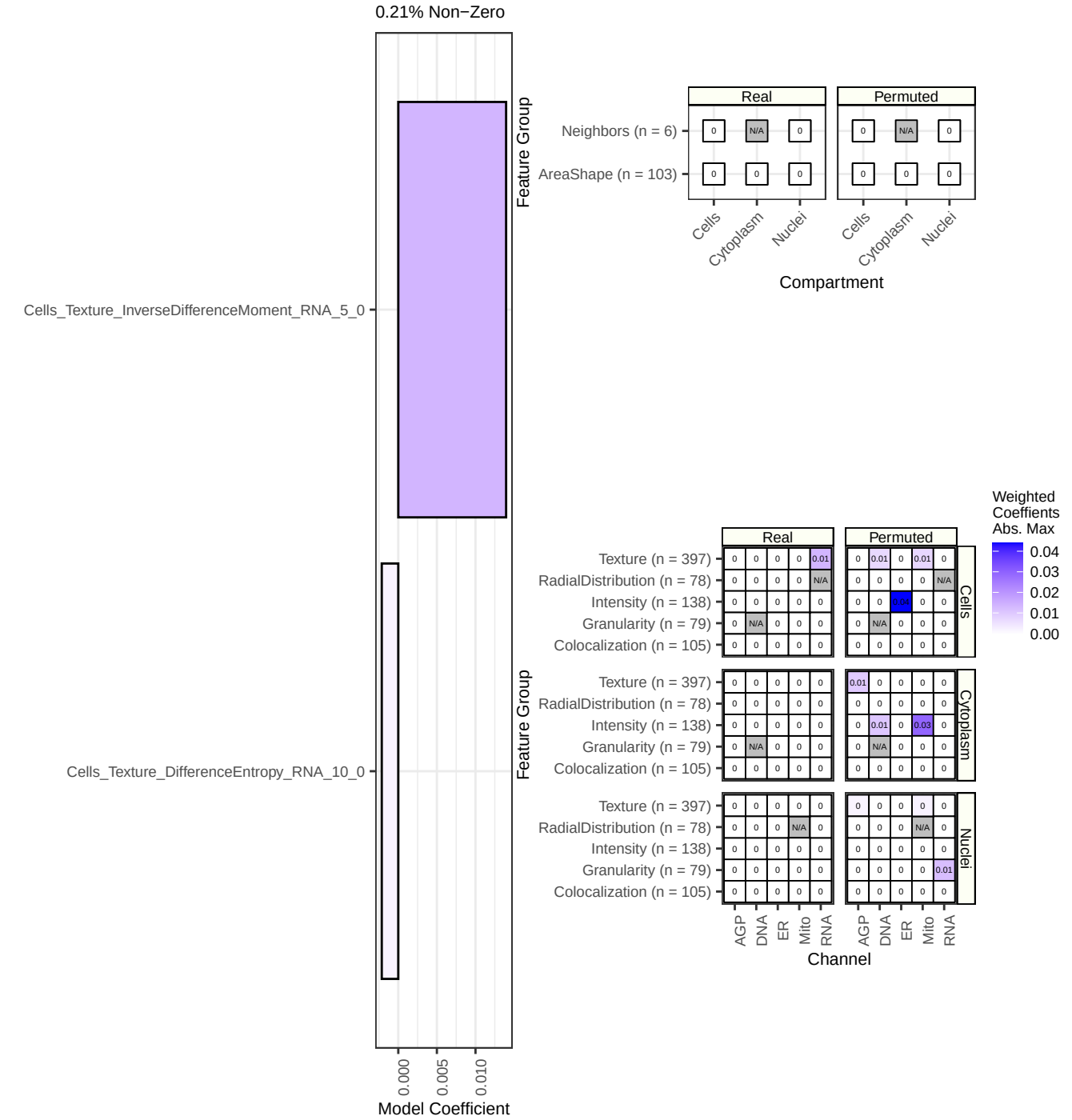
CC − % M


0.21% Non−Zero
Cells_Intensity_MADIntensity_AGP
Nuclei_RadialDistribution_MeanFrac_AGP_3of4
Feature Group
0.000
0.002
0.004
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Weighted Coeffients Abs. Max
0.005
0.004
0.003
0.002
0.001
0.000
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel

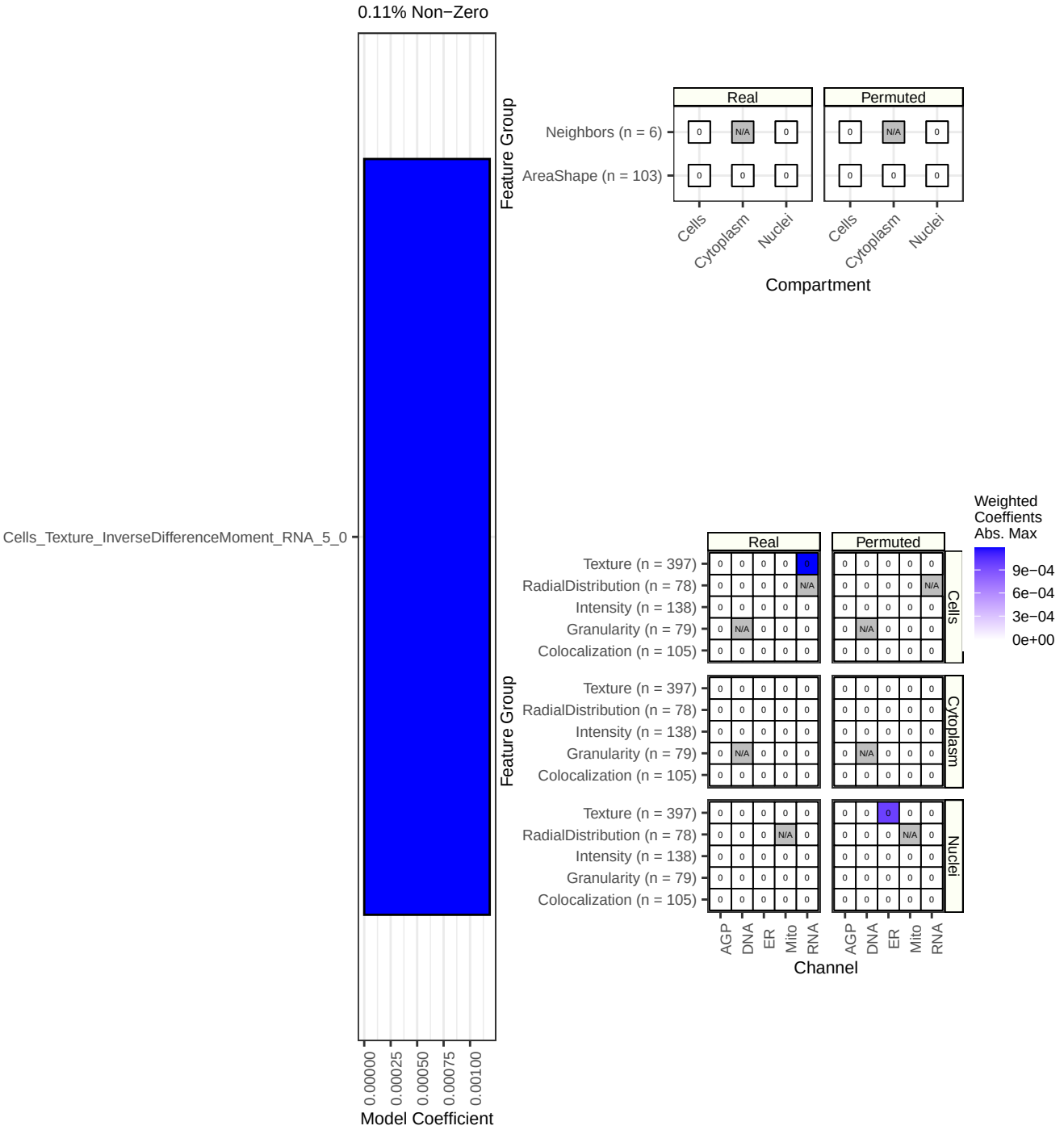
CC − # cells


43.05% Non−Zero
Cytoplasm_Correlation_K_Mito_RNA
Cells_Neighbors_SecondClosestObjectNumber_10
Cells_Neighbors_FirstClosestObjectNumber_Adjacent
Cells_Correlation_K_AGP_DNA
Cytoplasm_Number_Object_Number
Cells_Neighbors_FirstClosestObjectNumber_10
Cells_Neighbors_SecondClosestObjectNumber_Adjacent
Nuclei_Neighbors_SecondClosestObjectNumber_2
Nuclei_Number_Object_Number
Nuclei_Neighbors_FirstClosestObjectNumber_2
Cells_Correlation_K_RNA_DNA
Cytoplasm_Correlation_Overlap_ER_AGP
Cytoplasm_RadialDistribution_RadialCV_Mito_1of4
Nuclei_Granularity_9_DNA
Cytoplasm_Correlation_Correlation_Mito_AGP
Feature Group
−0.2
−0.1
0.0
0.1
0.2
0.3
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
0.26
N/A
0.21
0
N/A
0
0.12
0.18
0.11
0
0
0
Cells
Cytoplasm
Nuclei
Compartment
Weighted Coeffients Abs. Max
0.2
0.1
0.0
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
Cells
Cytoplasm
Nuclei
AGP
DNA
ER
Mito
RNA
Channel

CC − # of gH2AX Spots

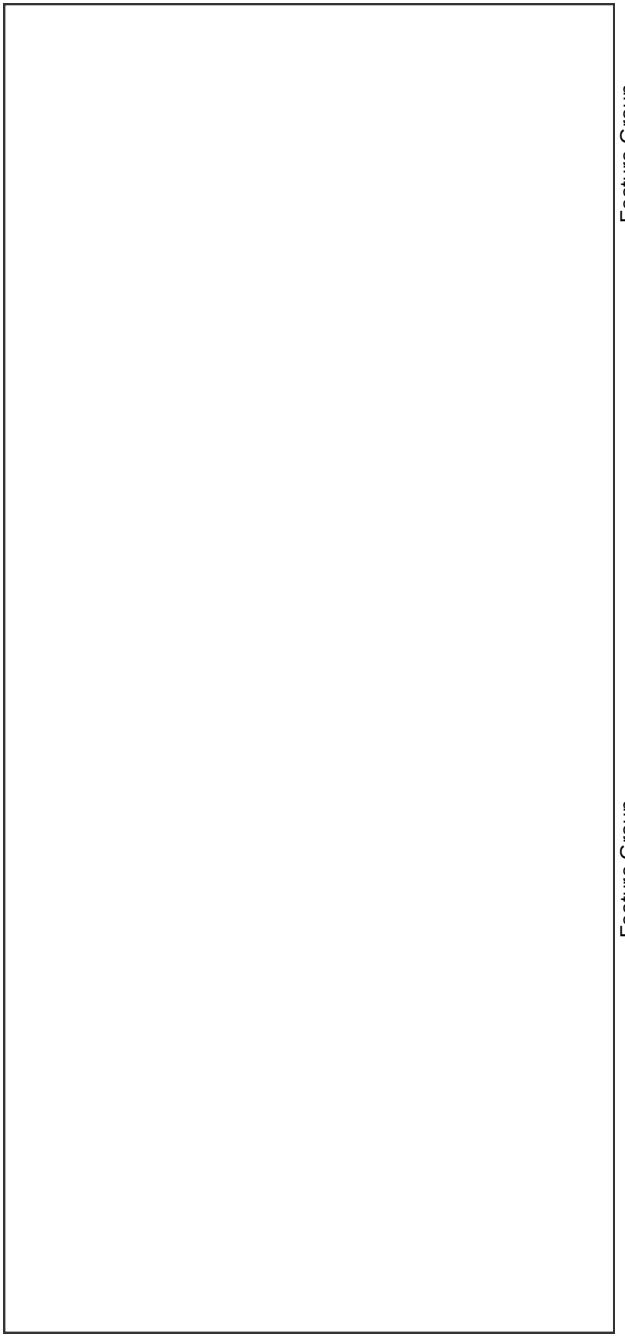


CC − # of gH2AX Spots per Area of Nucleus

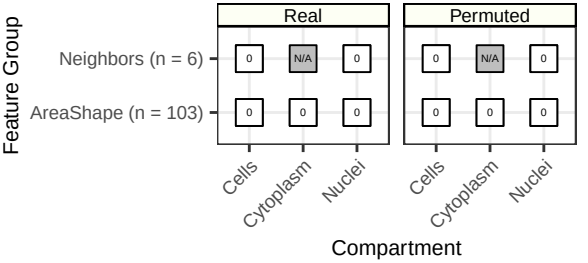


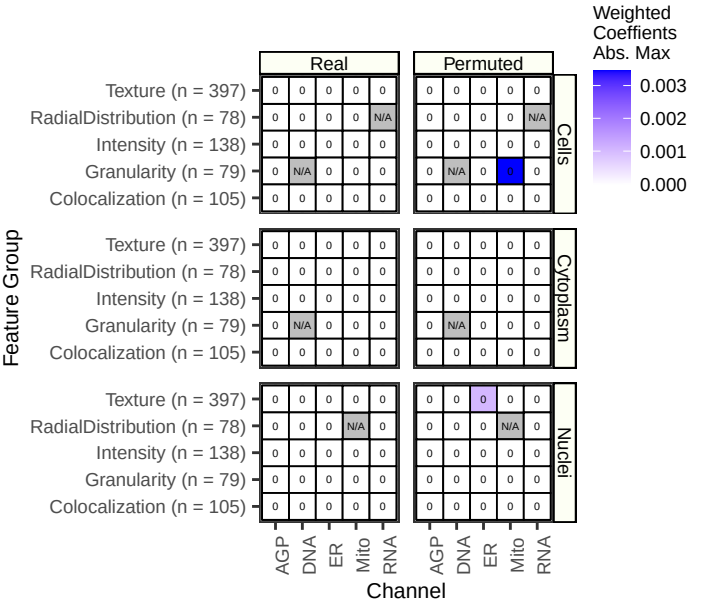
CC − % S

0% Non−Zero

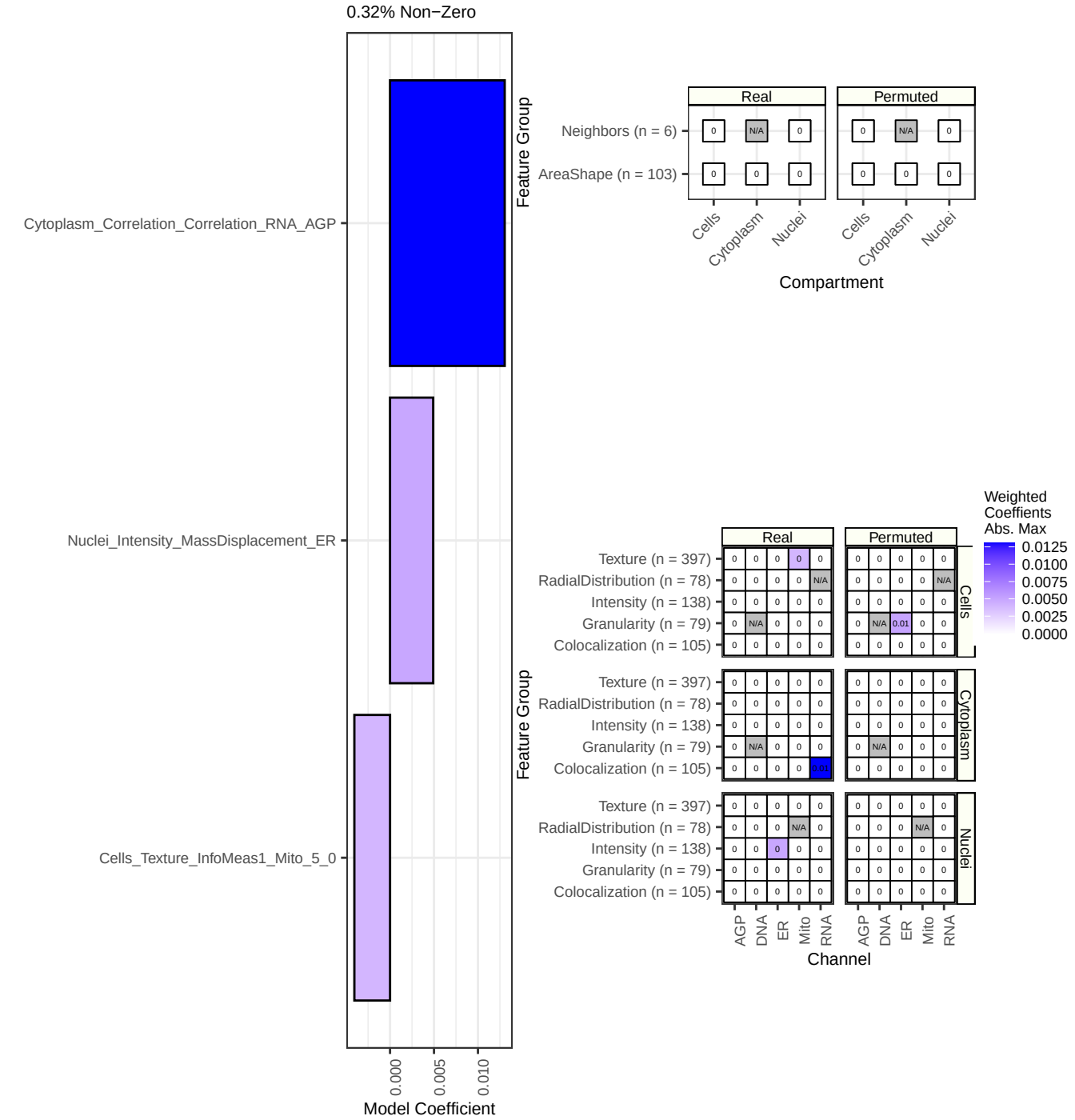


Model Coefficient

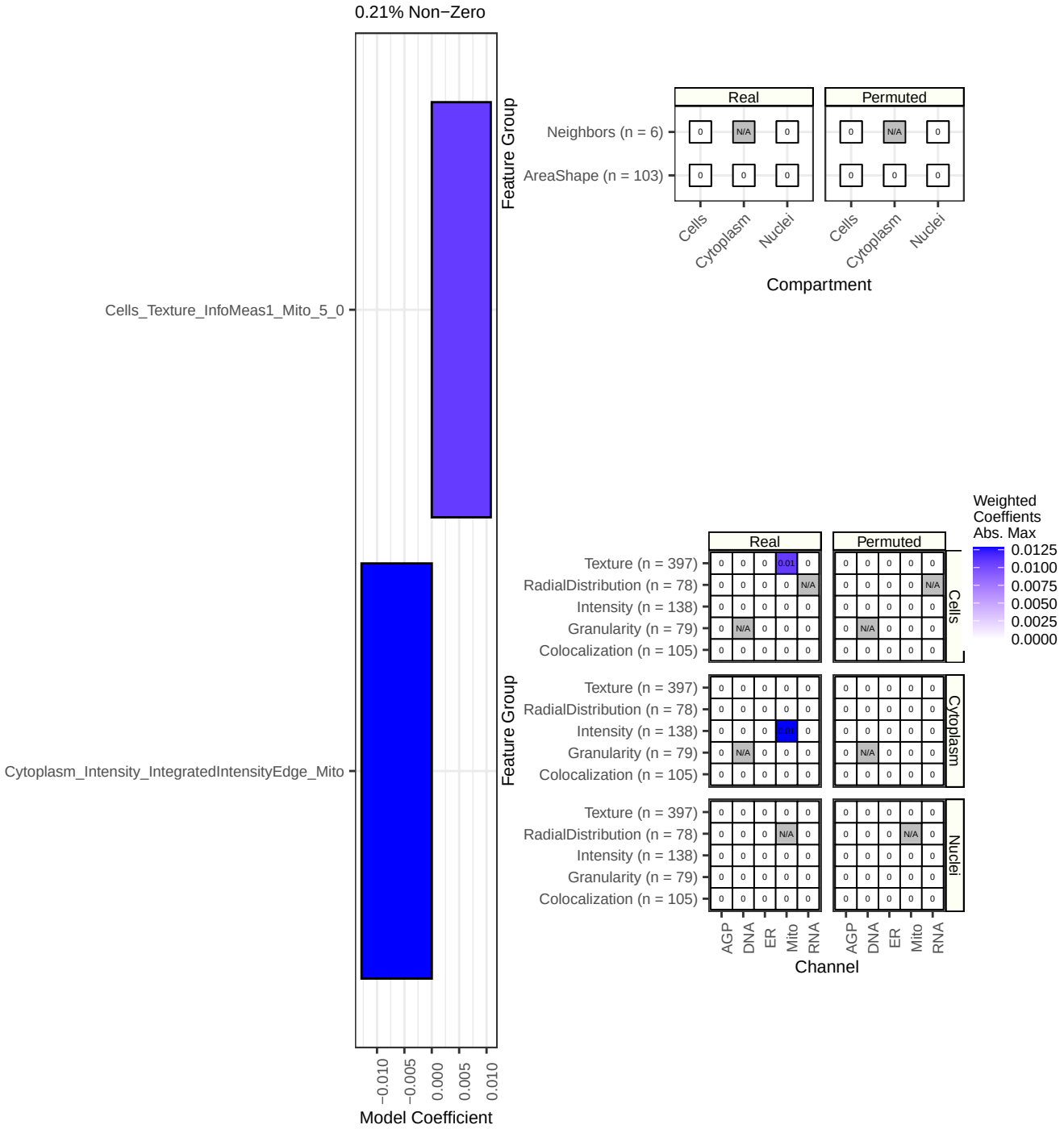




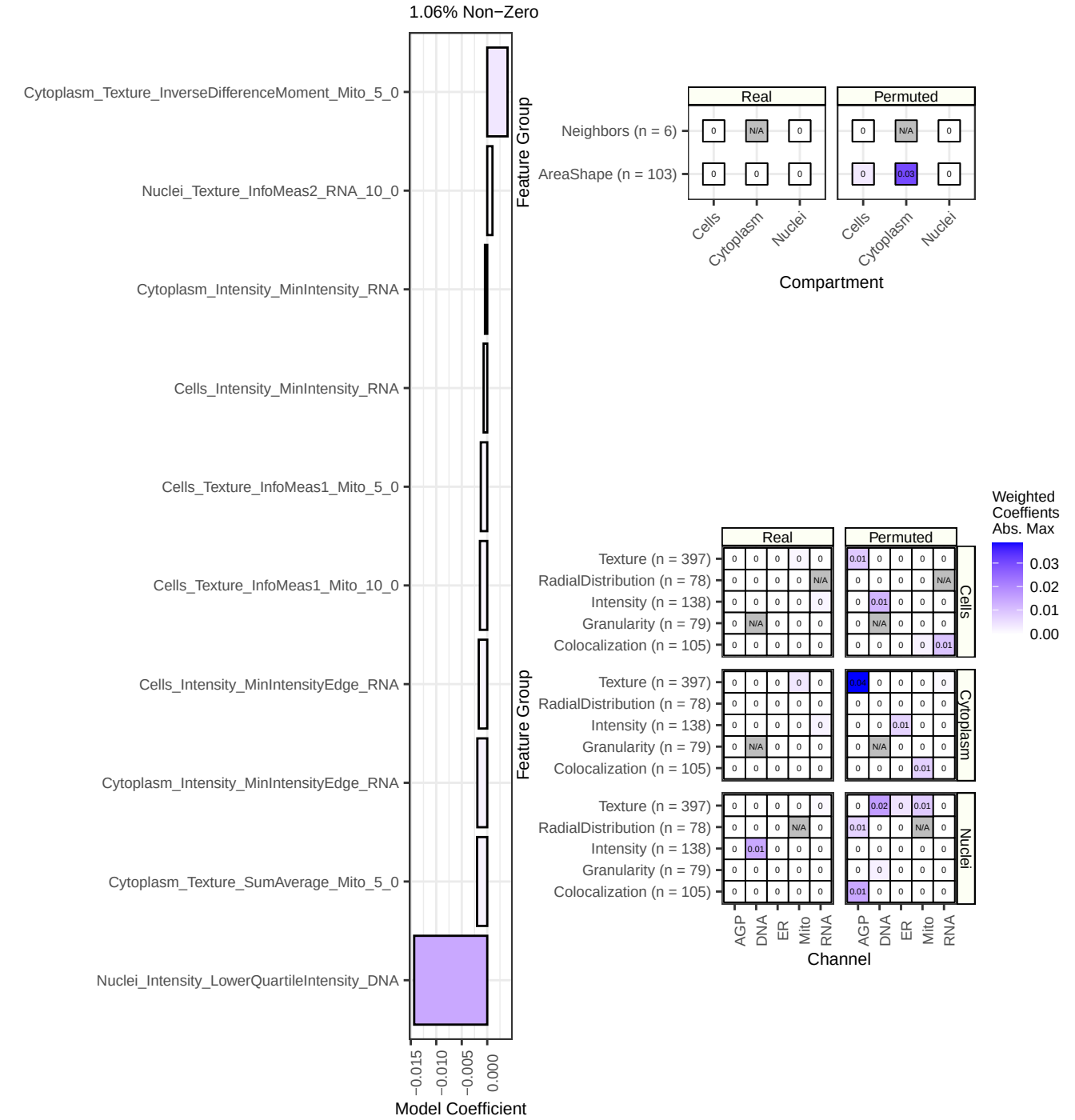
early M − % High gH2AX Spots



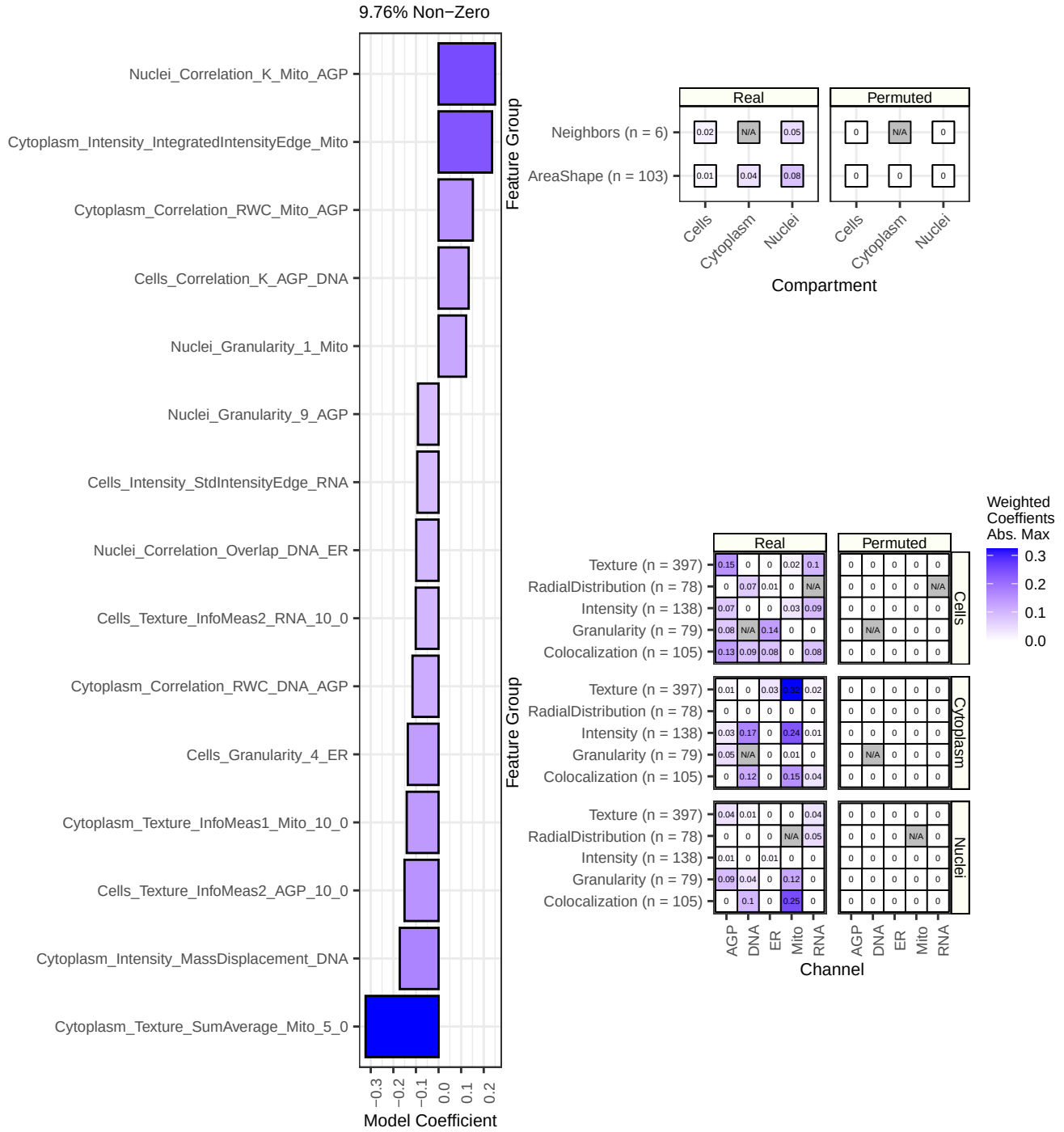
early M − # cells



early M − # of gH2AX Spots

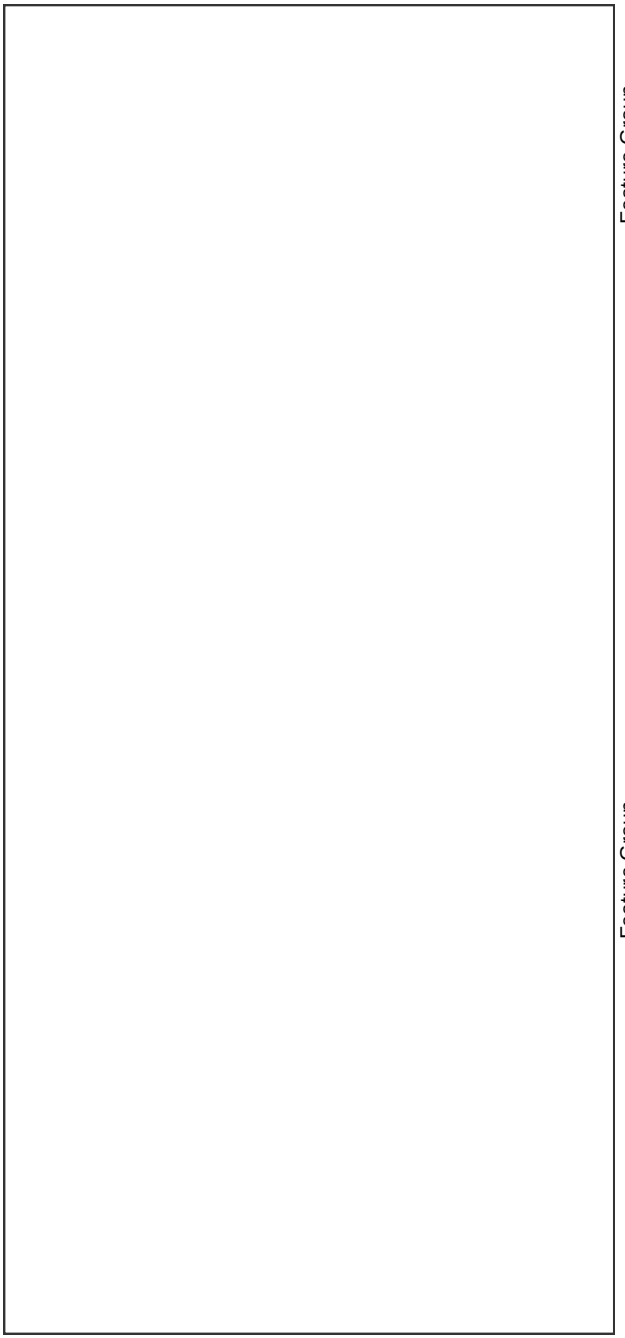


early M − # of gH2AX Spots per Area of Nucleus

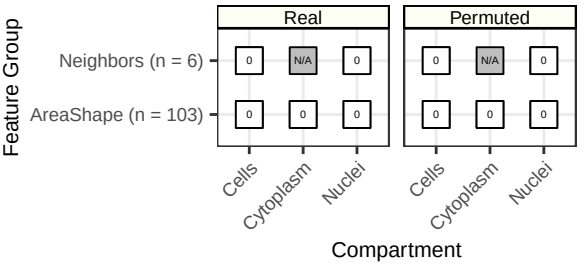


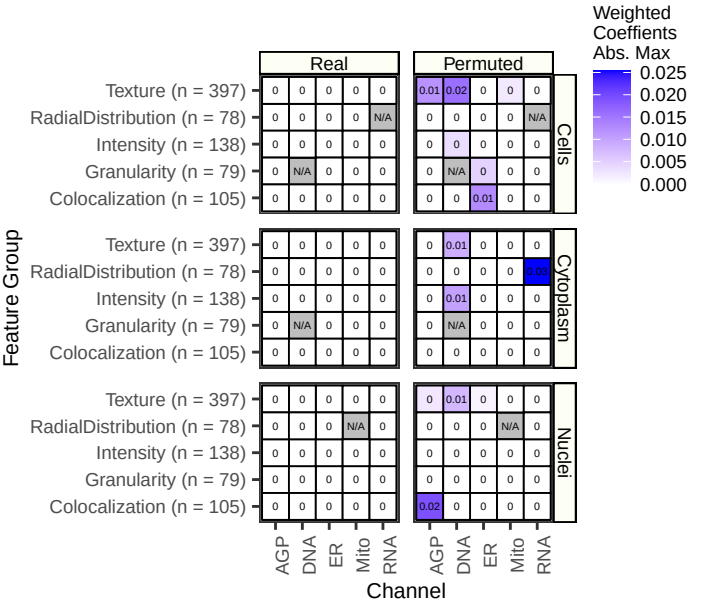
G1 − % High gH2AX Spots

0% Non−Zero

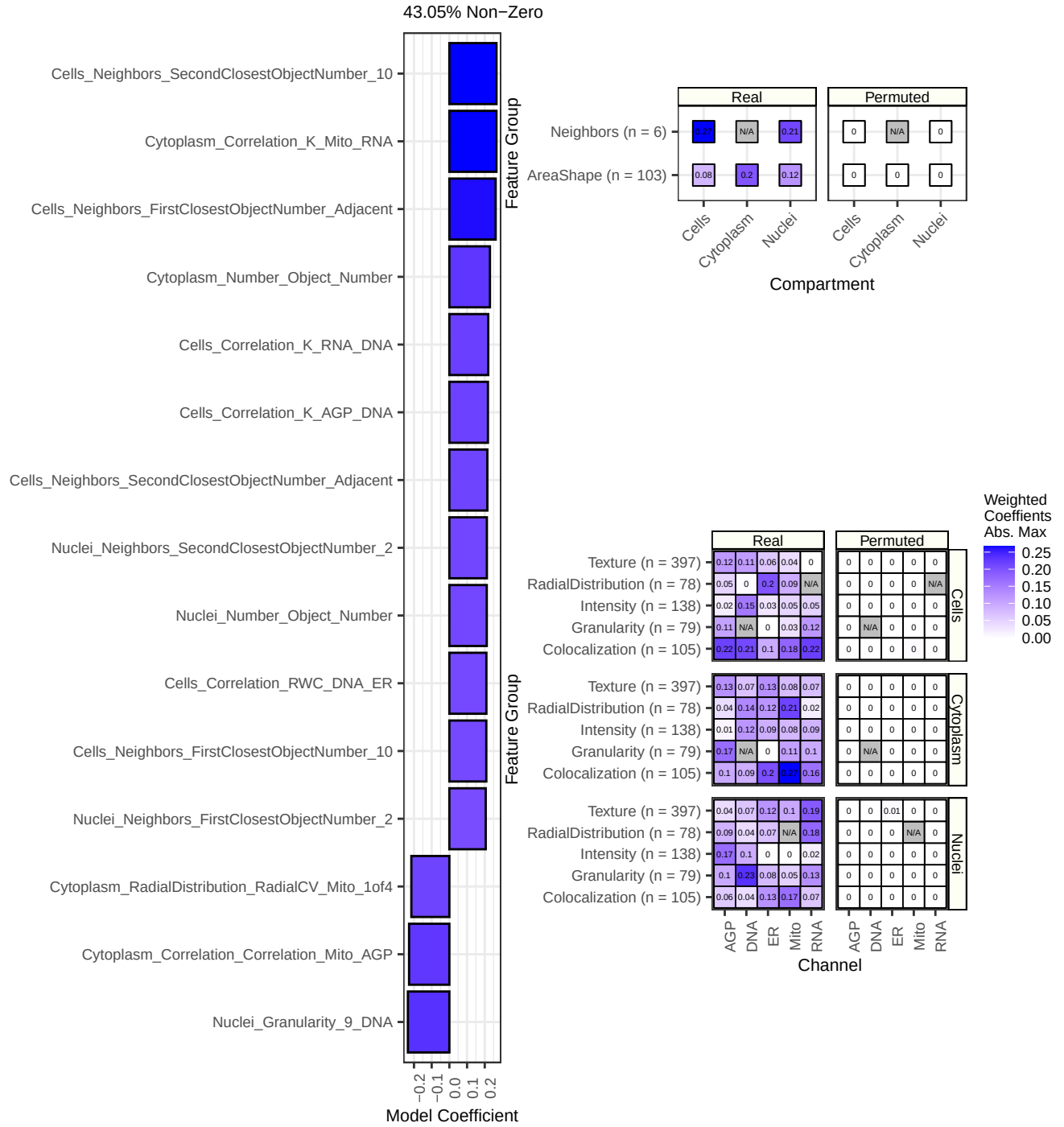


Model Coefficient



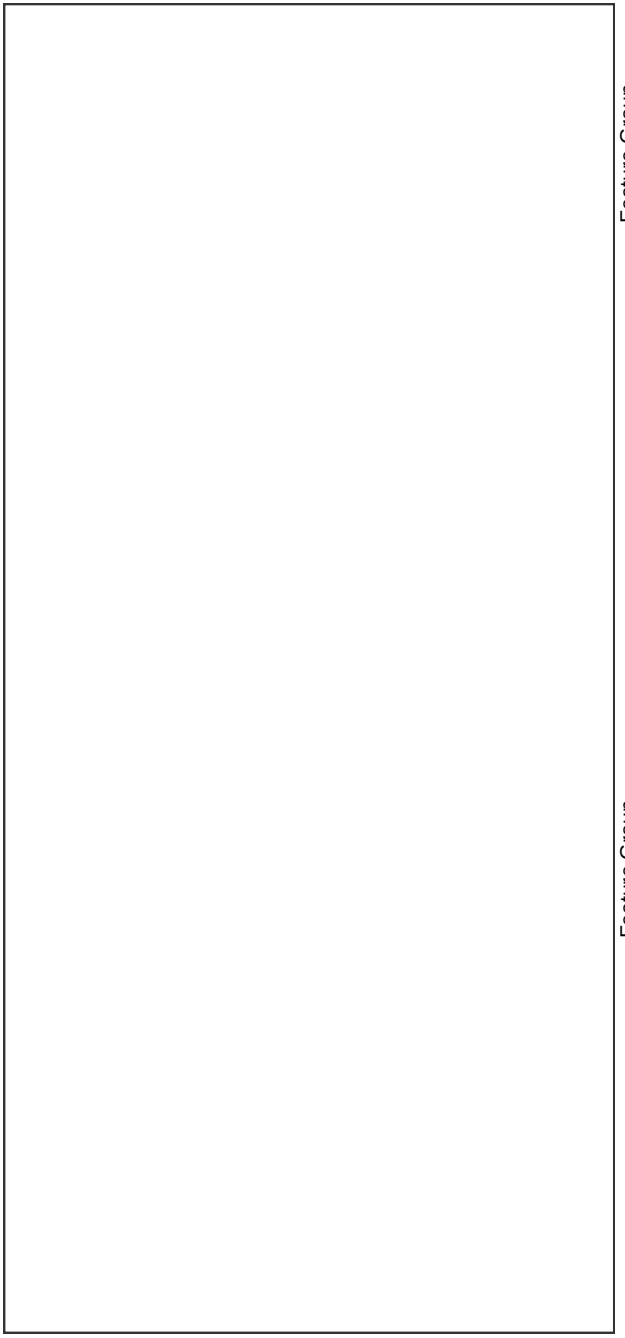


G1 − # cells

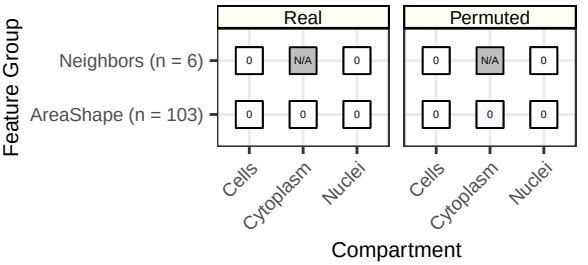

43.05% Non−Zero
Cells_Neighbors_SecondClosestObjectNumber_10
Cytoplasm_Correlation_K_Mito_RNA
Cells_Neighbors_FirstClosestObjectNumber_Adjacent
Cytoplasm_Number_Object_Number
Cells_Correlation_K_RNA_DNA
Cells_Correlation_K_AGP_DNA
Cells_Neighbors_SecondClosestObjectNumber_Adjacent
Nuclei_Neighbors_SecondClosestObjectNumber_2
Nuclei_Number_Object_Number
Cells_Correlation_RWC_DNA_ER
Cells_Neighbors_FirstClosestObjectNumber_10
Nuclei_Neighbors_FirstClosestObjectNumber_2
Cytoplasm_RadialDistribution_RadialCV_Mito_1of4
Cytoplasm_Correlation_Correlation_Mito_AGP
Nuclei_Granularity_9_DNA
Feature Group
−0.2
−0.1
0.0
0.1
0.2
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
0.27
N/A
0.21
0.08
0.2
0.12
Cells
Cytoplasm
Nuclei
Compartment
Weighted Coeffients Abs. Max
0.25
0.20
0.15
0.10
0.05
0.00
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel

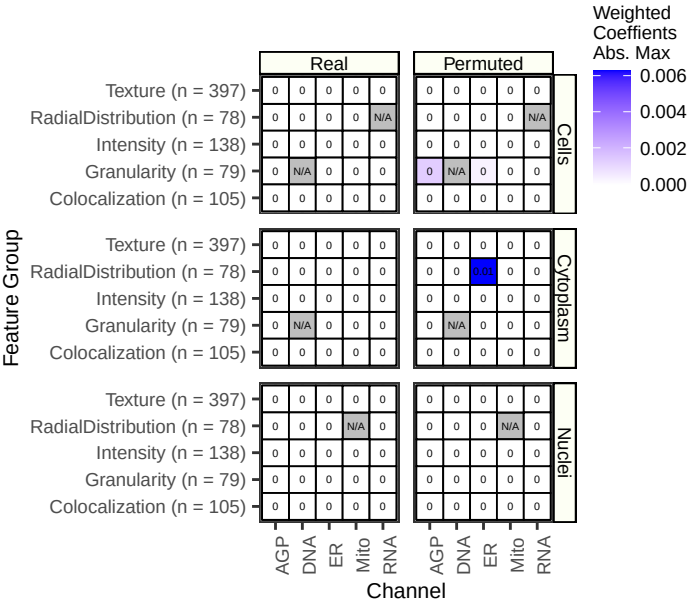
G1 − # of gH2AX Spots

0% Non−Zero

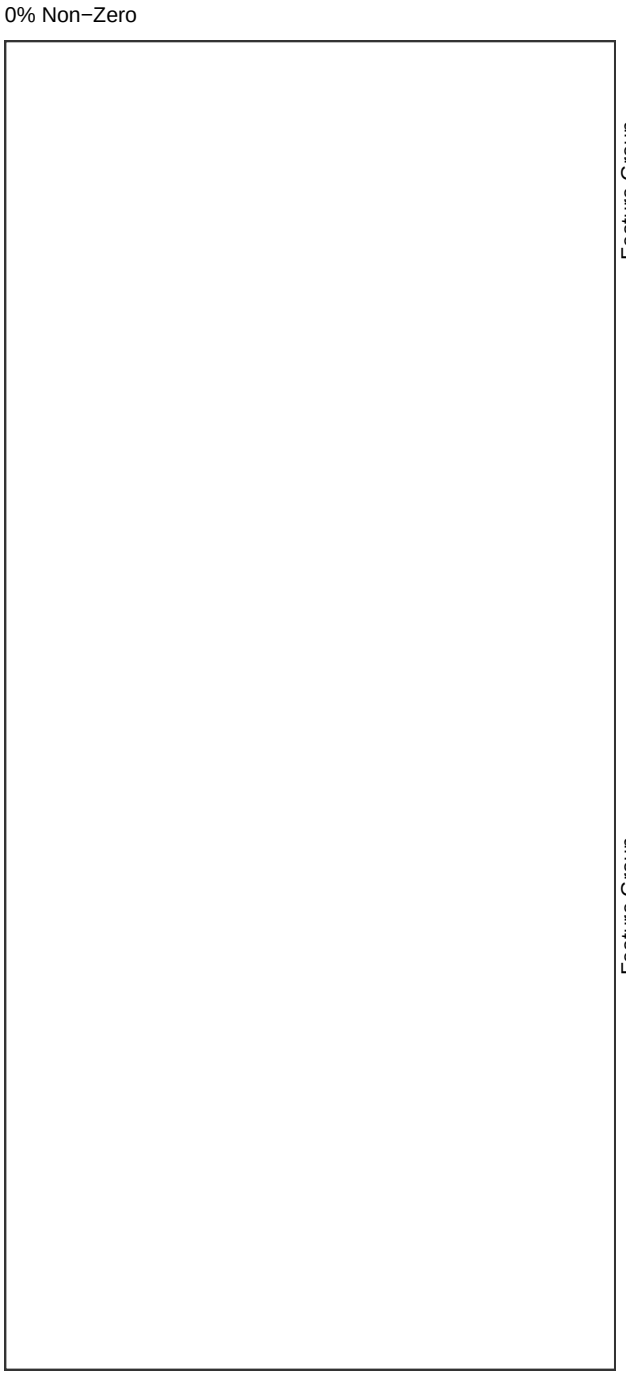


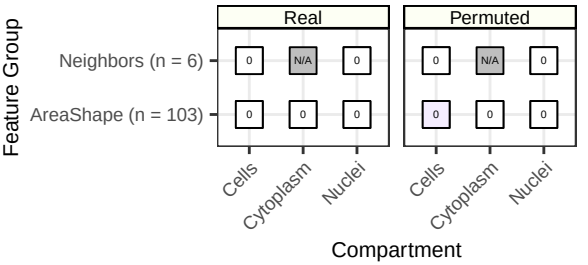
Model Coefficient

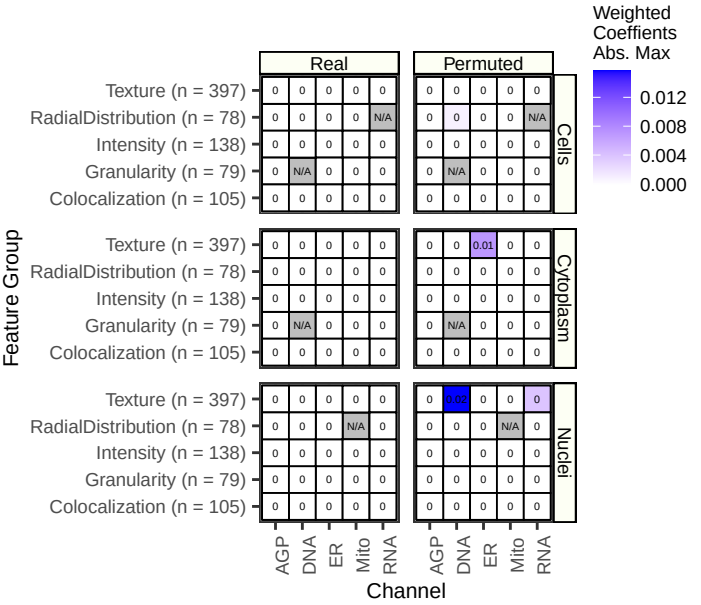




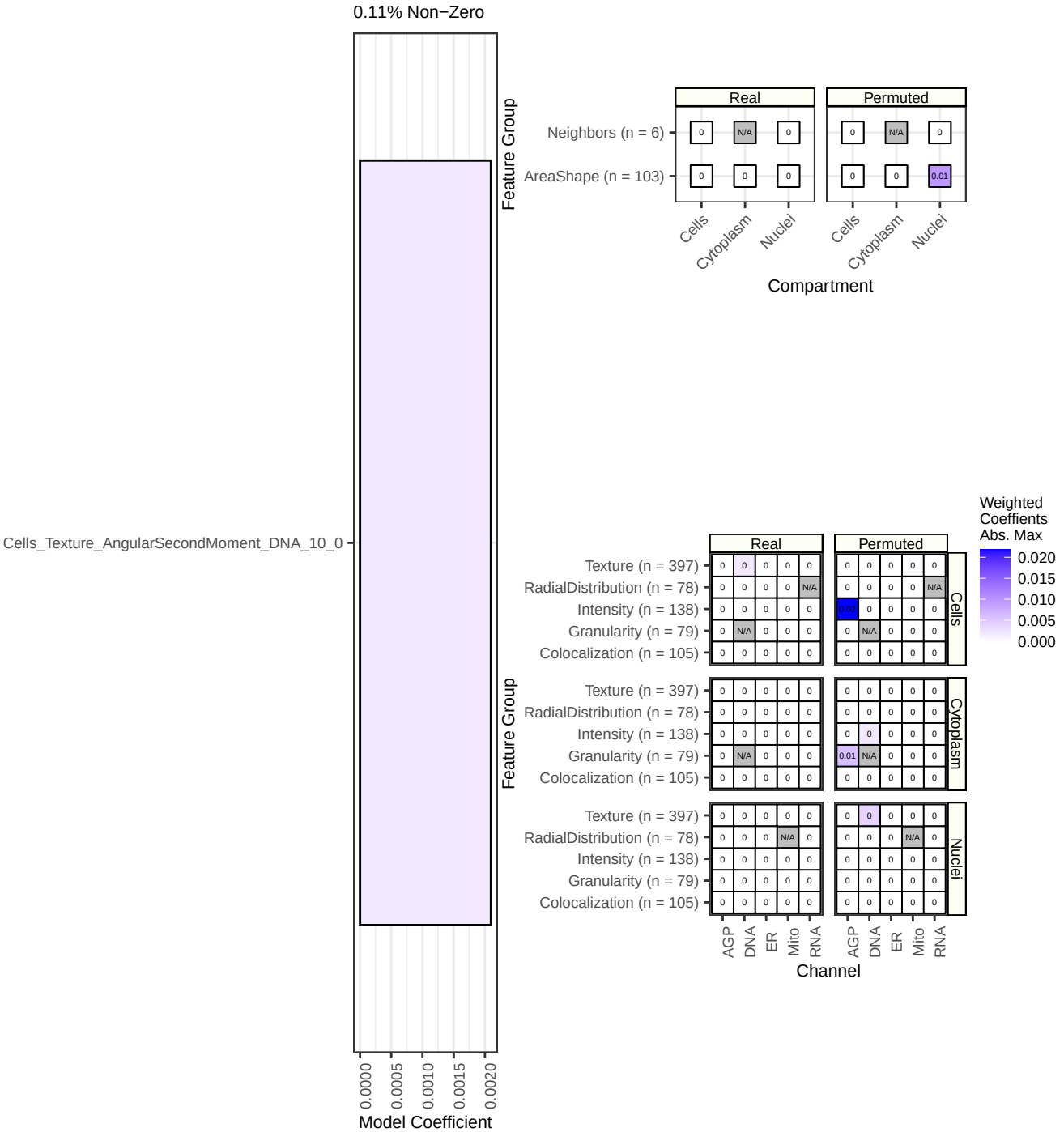
G1 − # of gH2AX Spots per Area of Nucleus







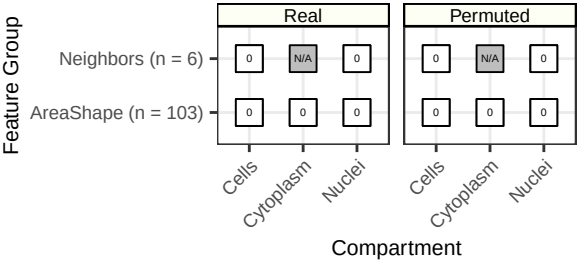
Cell Count − G1+G2

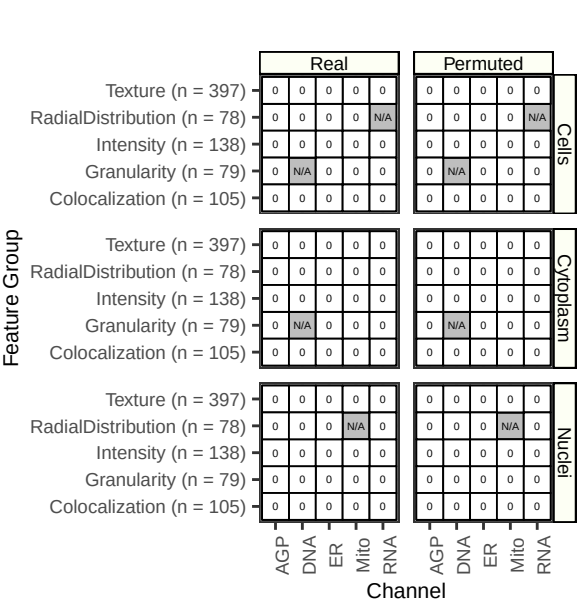


Cell Count − G2/G1

0% Non−Zero

Model Coefficient

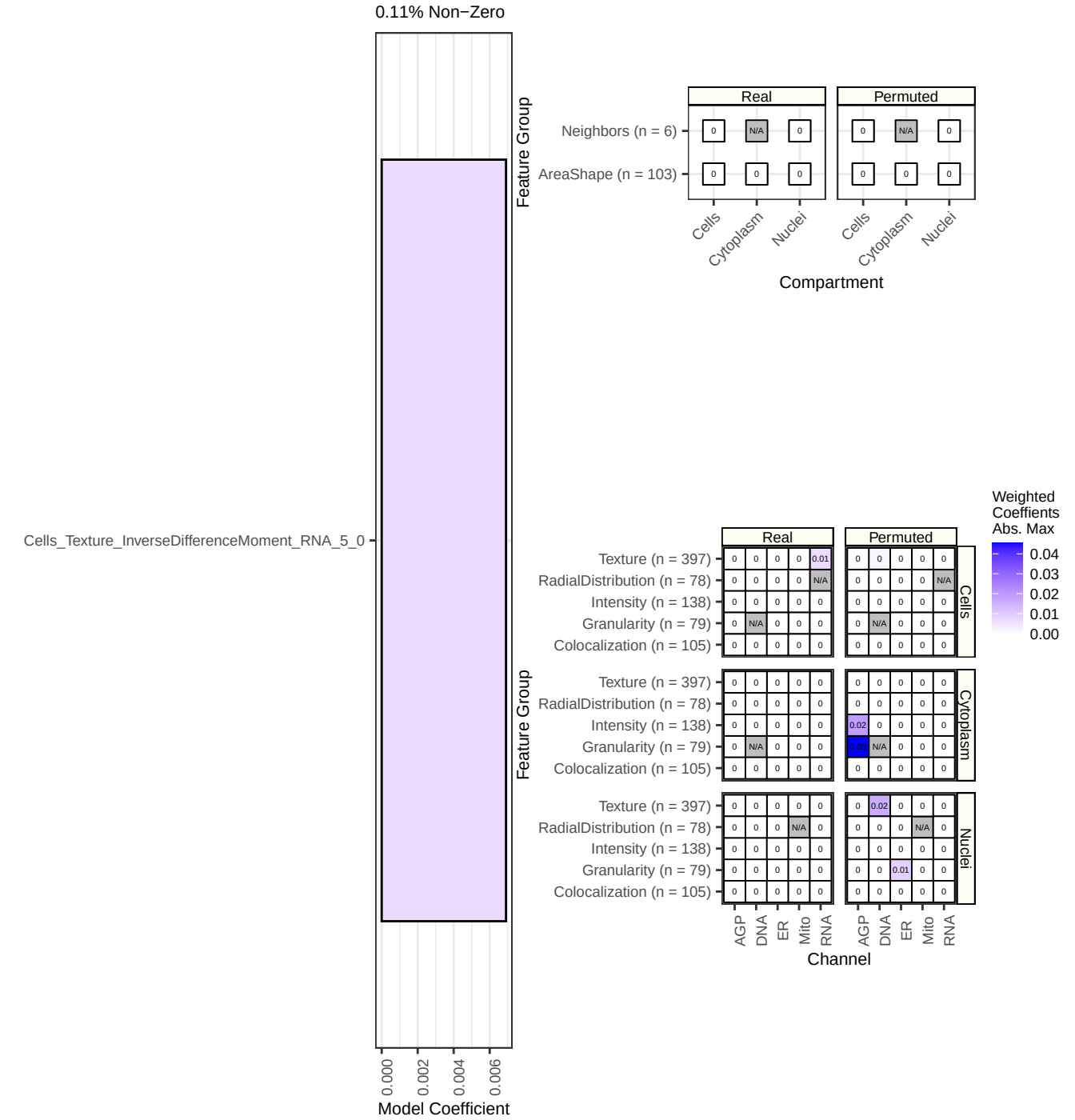




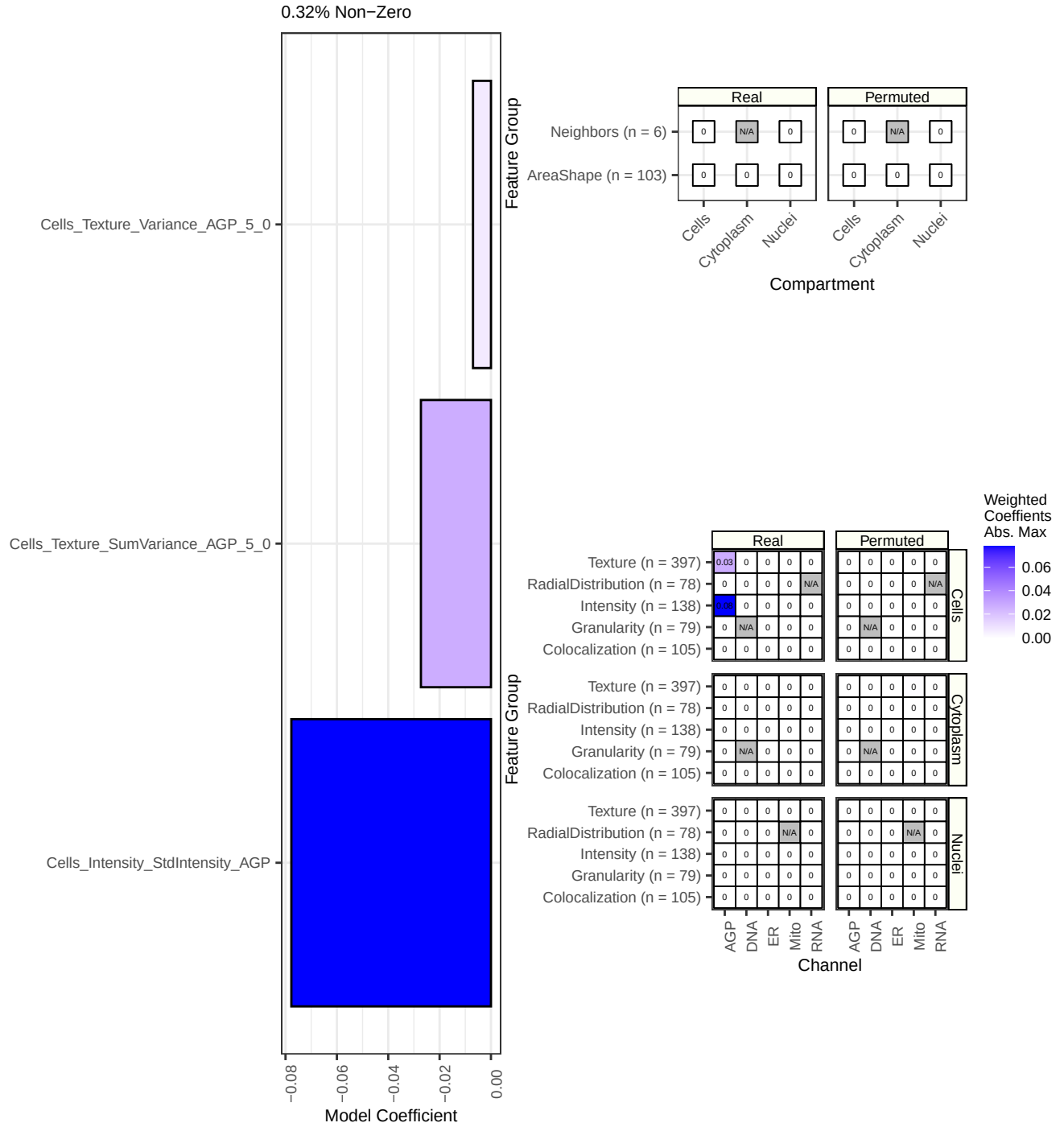
Weighted Coeffients Abs. Max

0

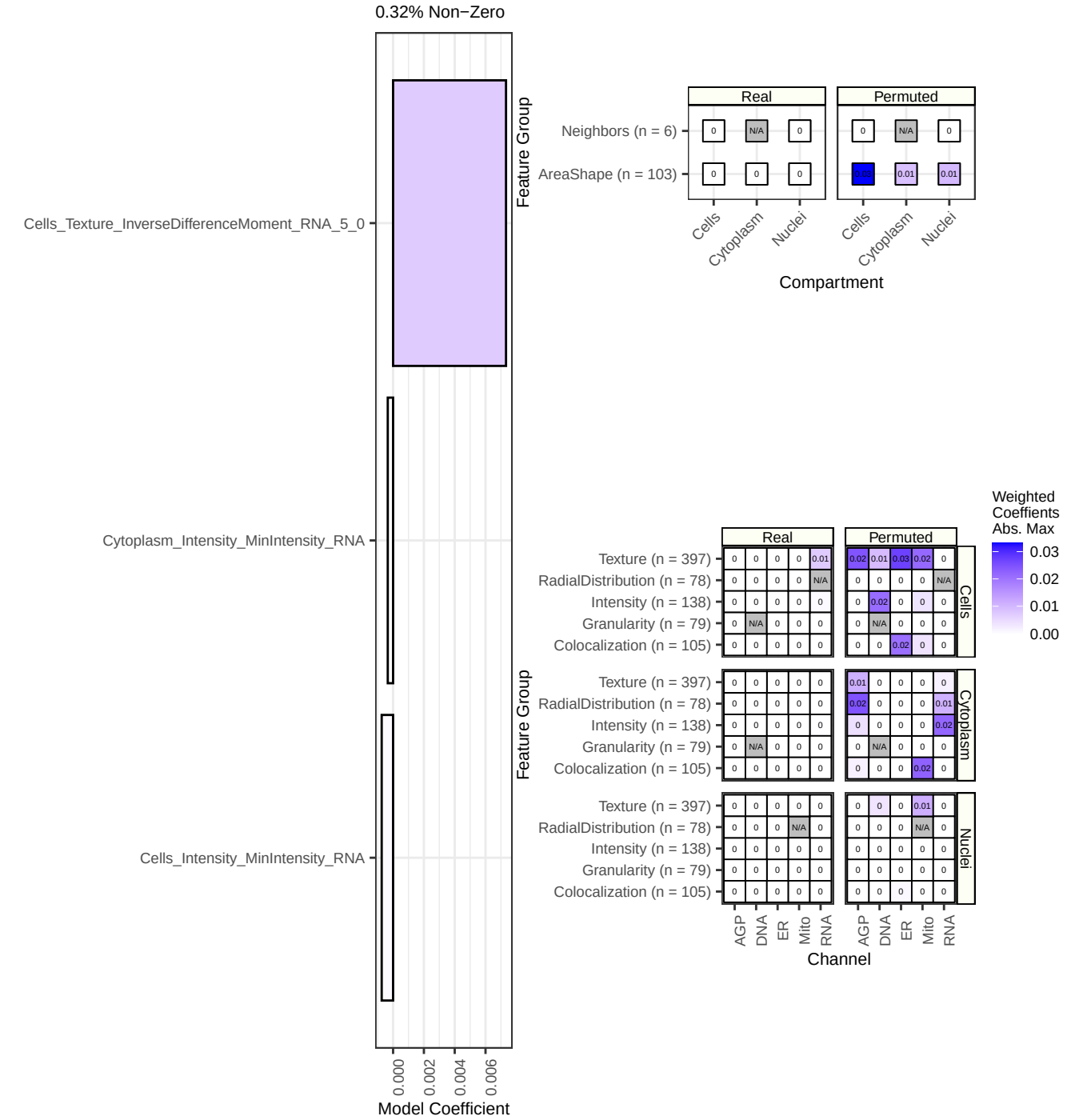
G2 − % High gH2AX Spots



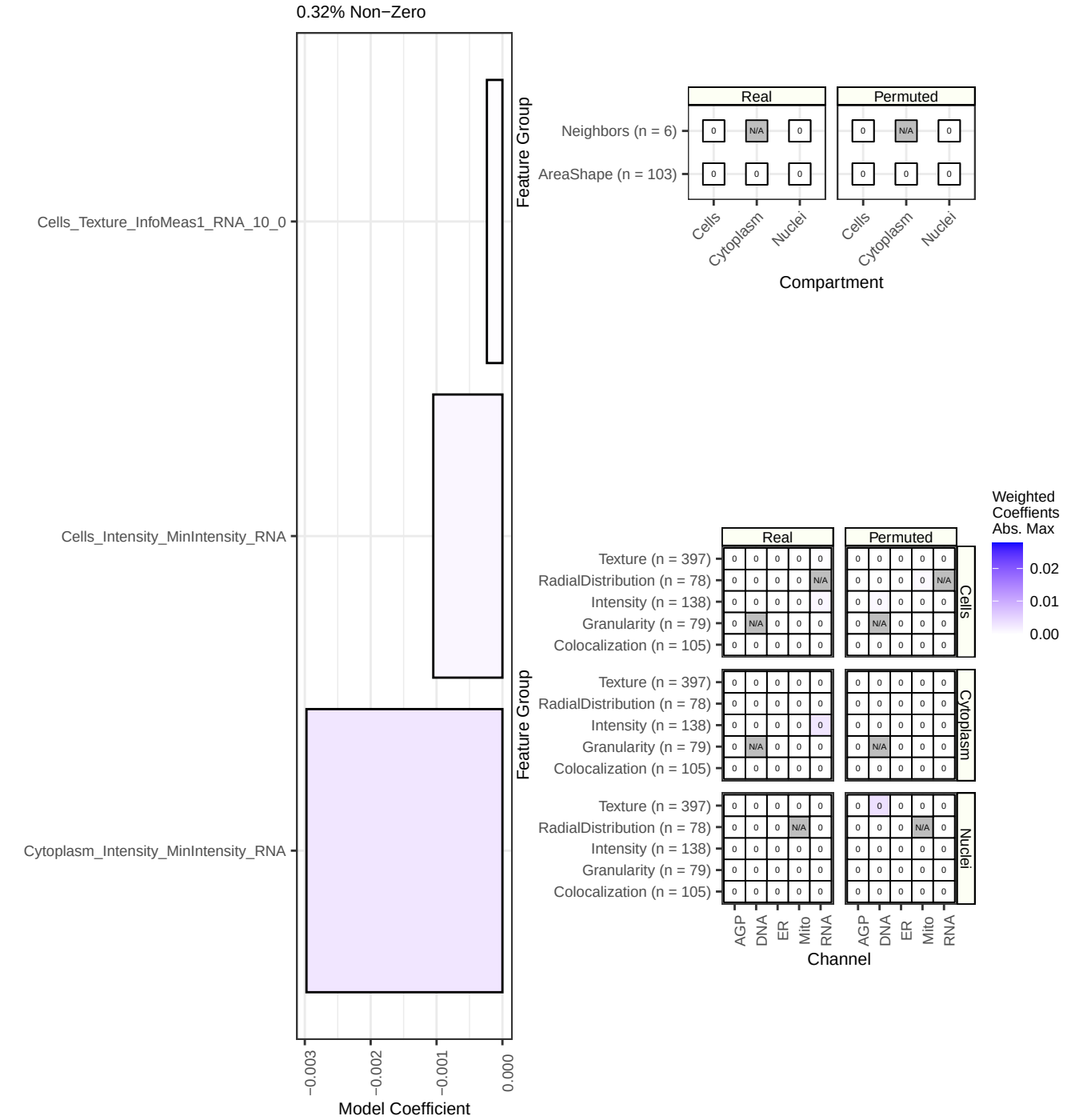
G2 − # cells


0.32% Non−Zero
Cells_Texture_Variance_AGP_5_0
Cells_Texture_SumVariance_AGP_5_0
Cells_Intensity_StdIntensity_AGP
Feature Group
−0.08
−0.06
−0.04
−0.02
0.00
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Weighted Coeffients Abs. Max
0.06
0.04
0.02
0.00
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel

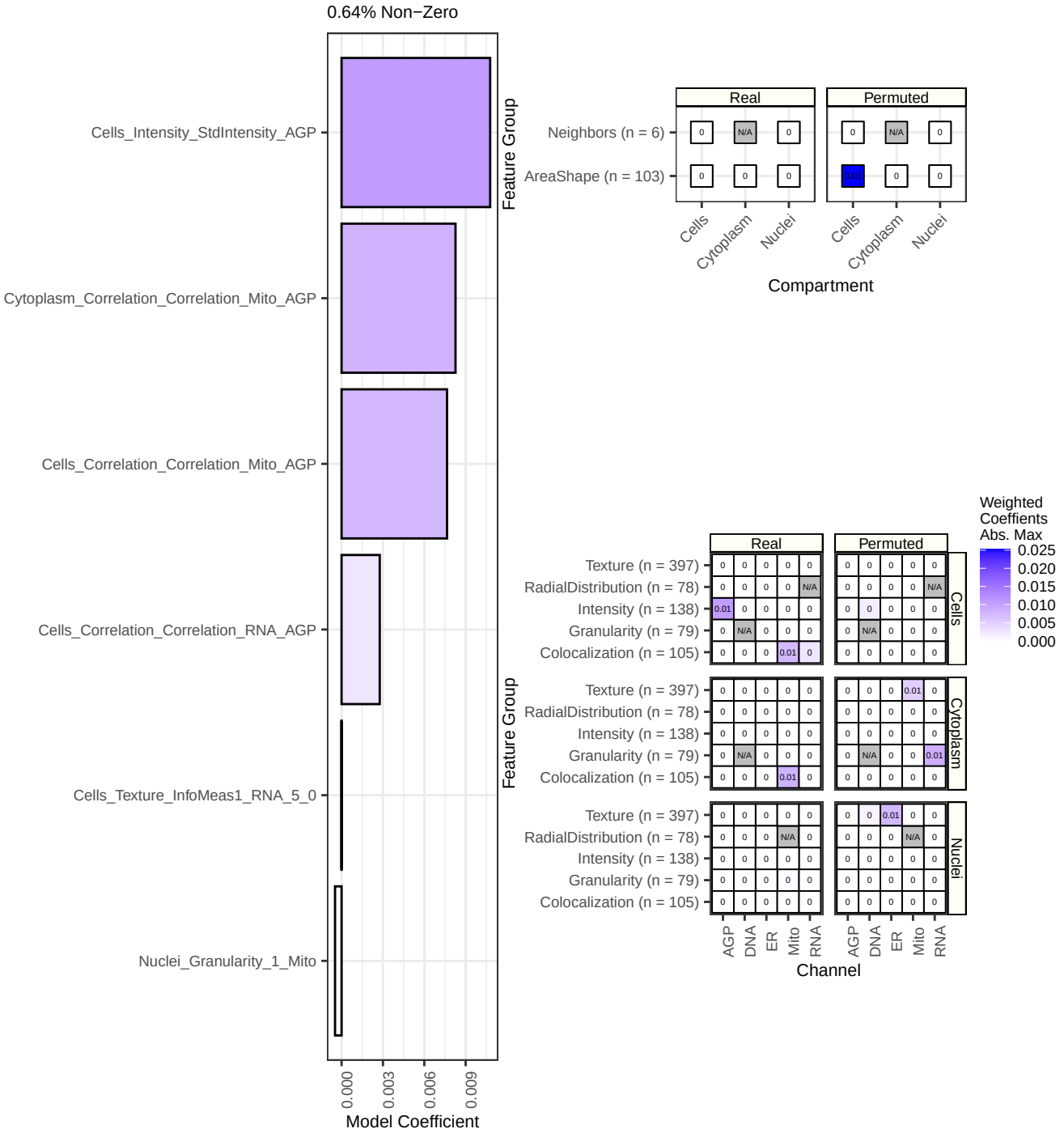
G2 − # of gH2AX Spots



G2 − # of gH2AX Spots per Area of Nucleus

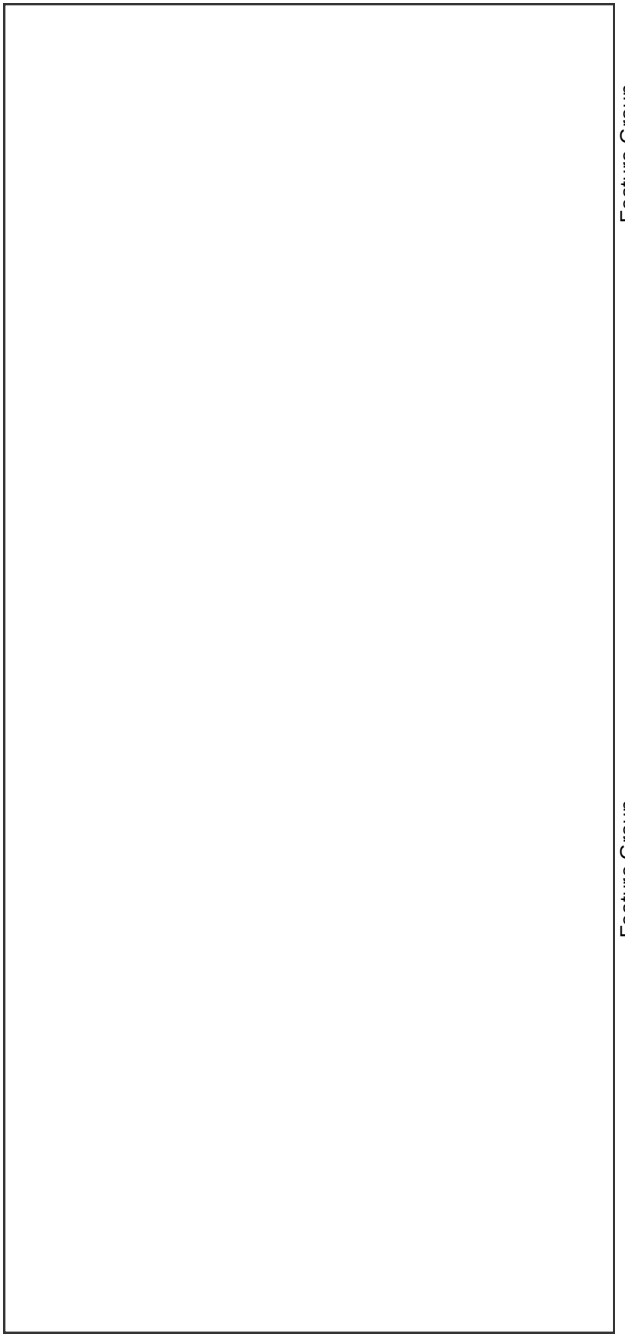


Cell Count − G2 + M

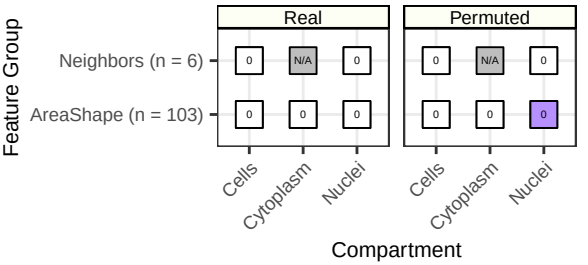


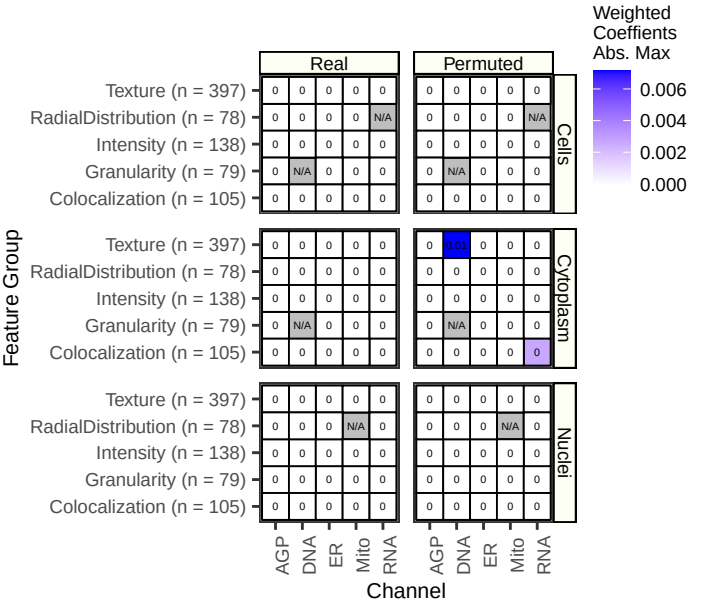
CC − Infection Efficiency

0% Non−Zero



Model Coefficient

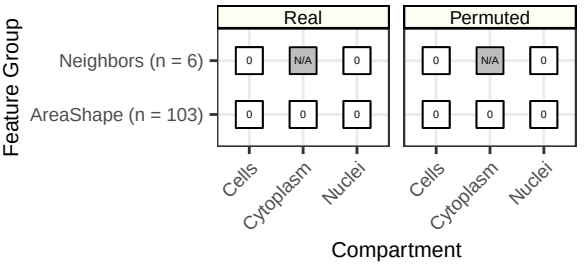


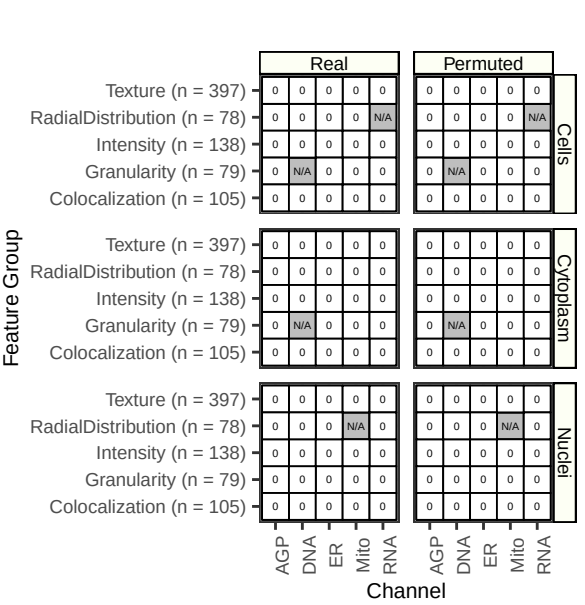


Late M − % High gH2AX Spots

0% Non−Zero

Model Coefficient





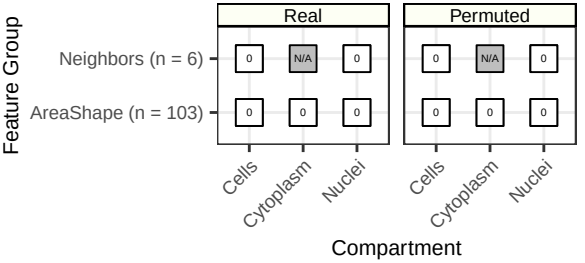
Weighted Coeffients Abs. Max

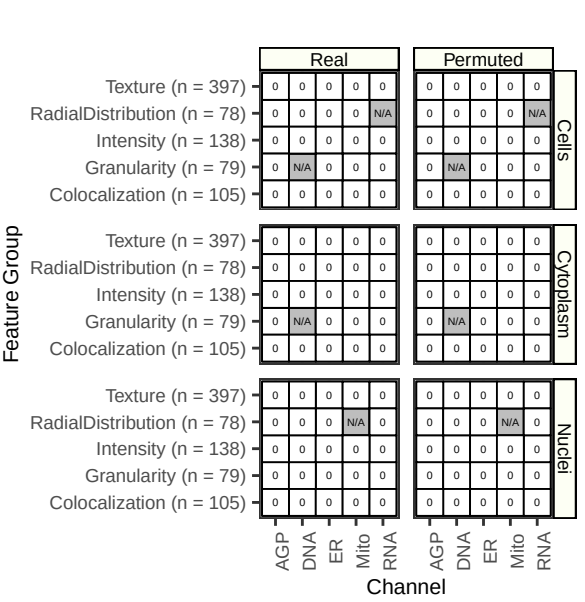
0

Late M − # cells

0% Non−Zero

Model Coefficient



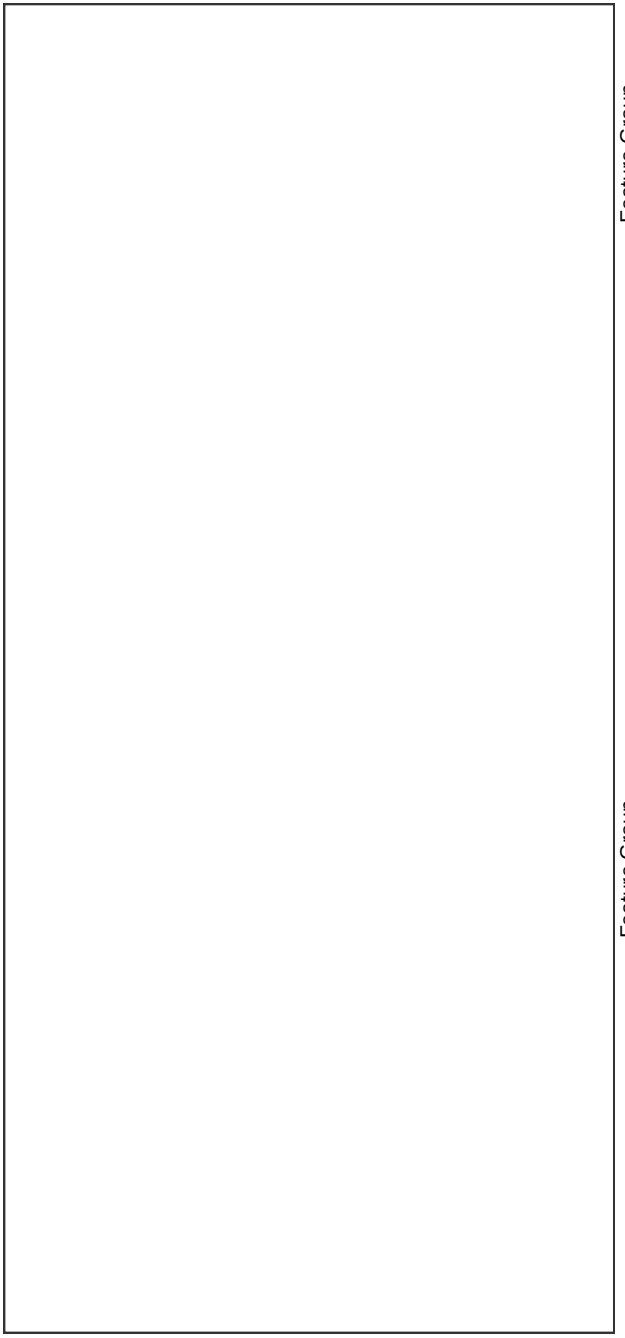


Weighted Coeffients Abs. Max

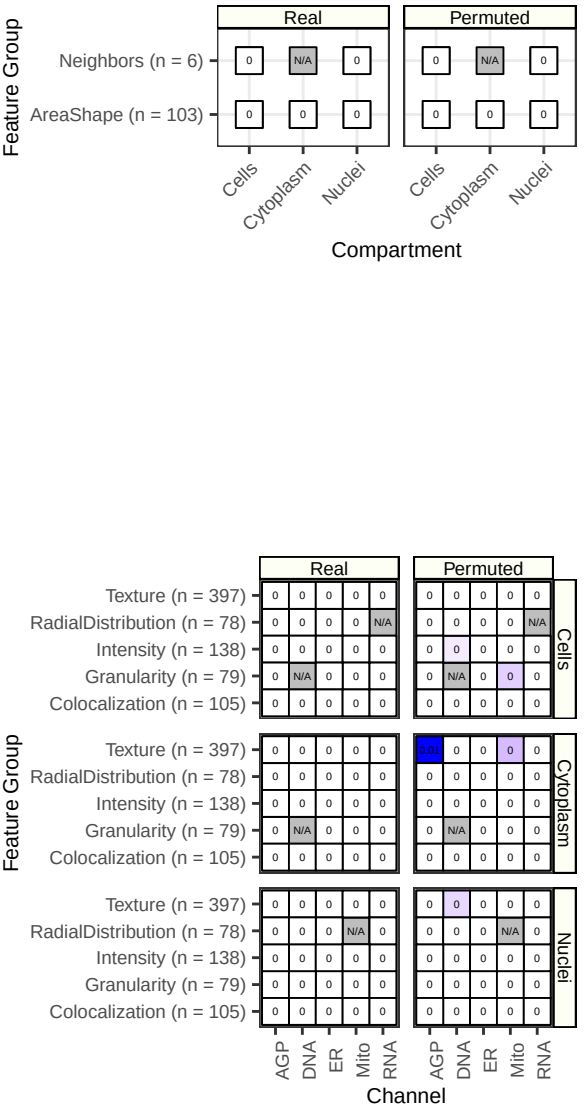
0

Late M − # of gH2AX Spots

0% Non−Zero

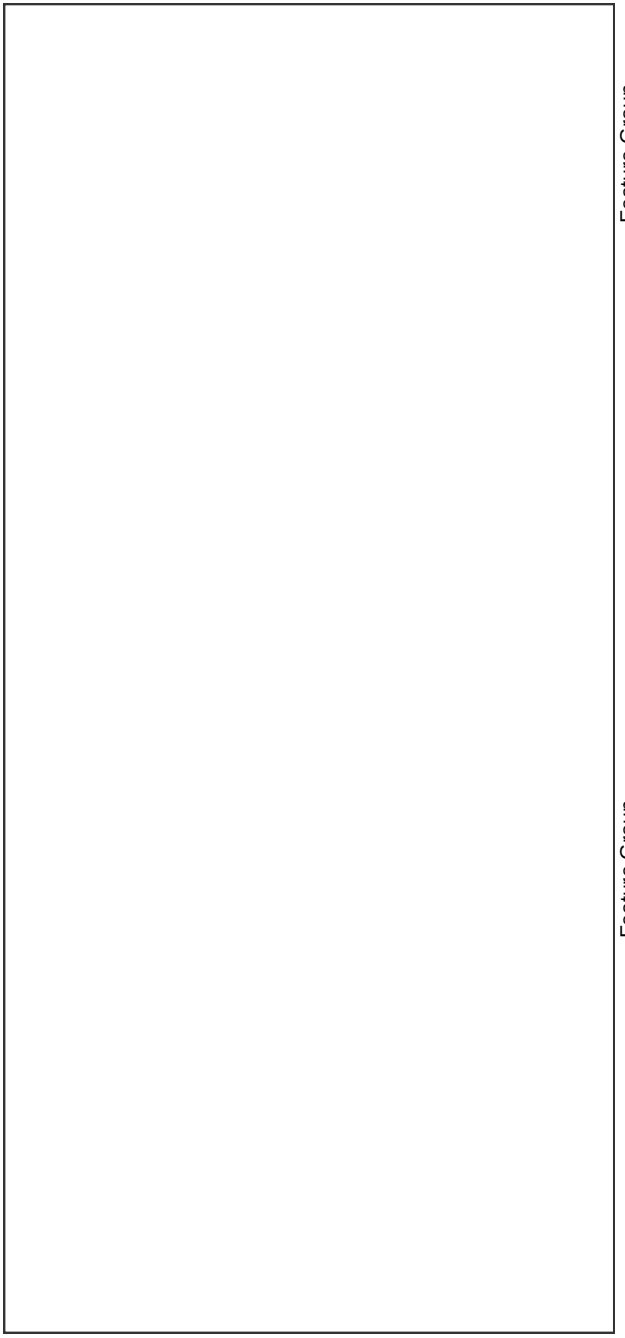


Model Coefficient

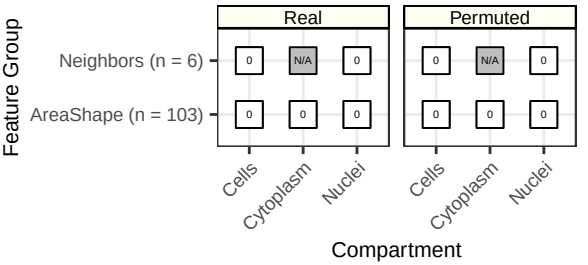


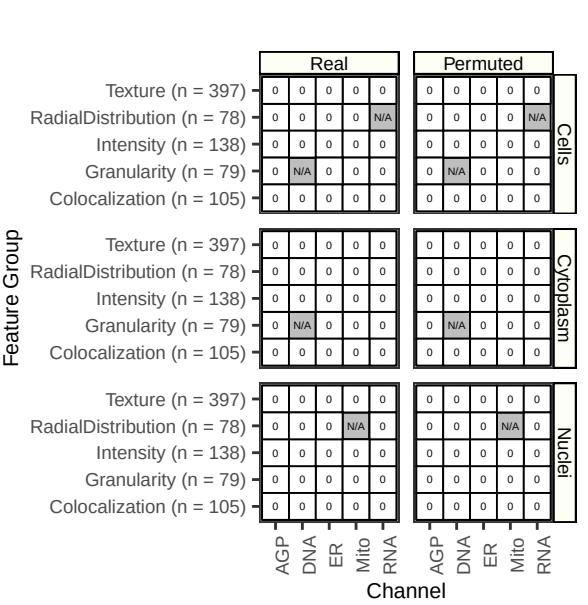
Late M − # of gH2AX Spots per Area of Nucleus

0% Non−Zero



Model Coefficient

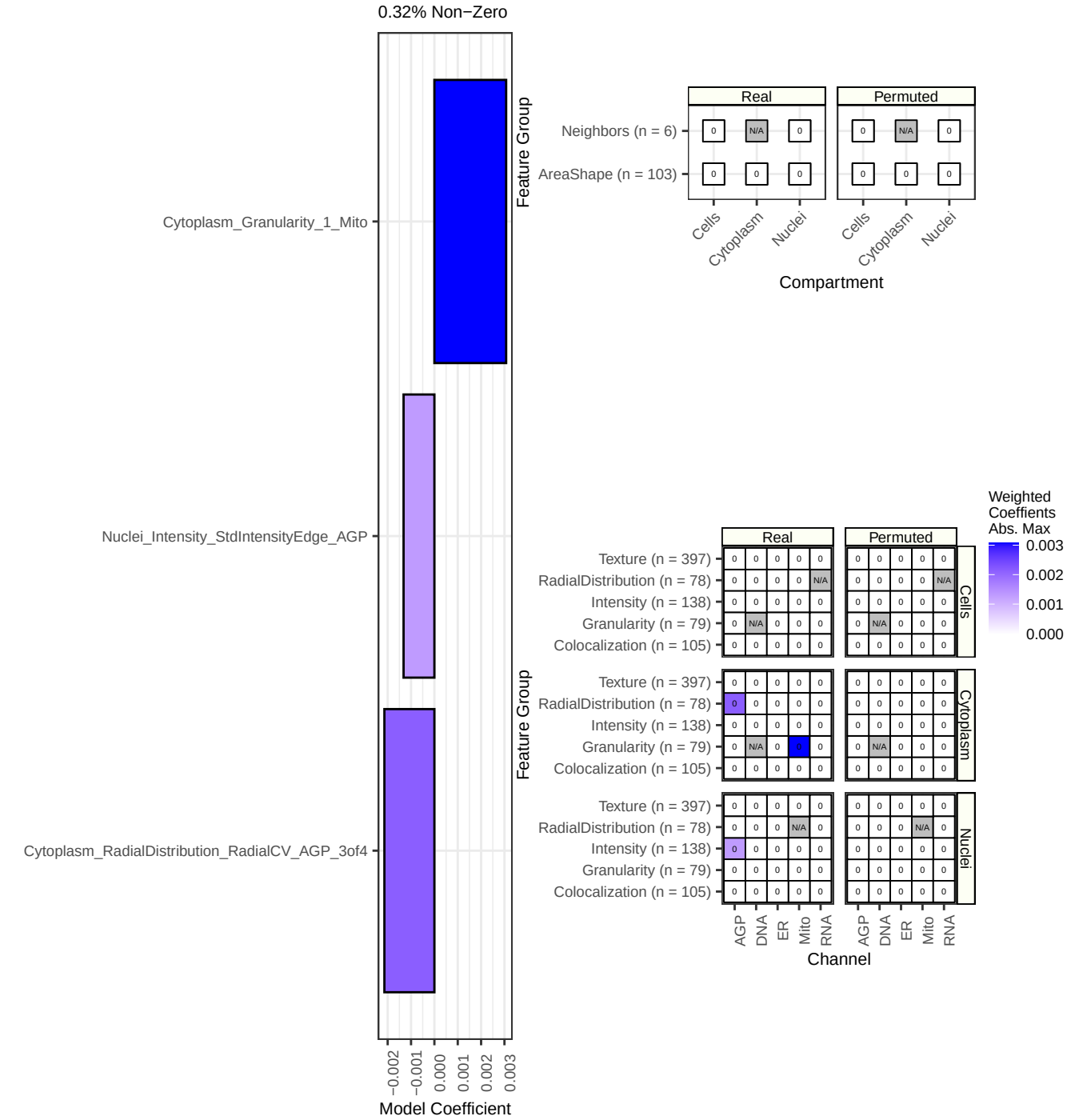




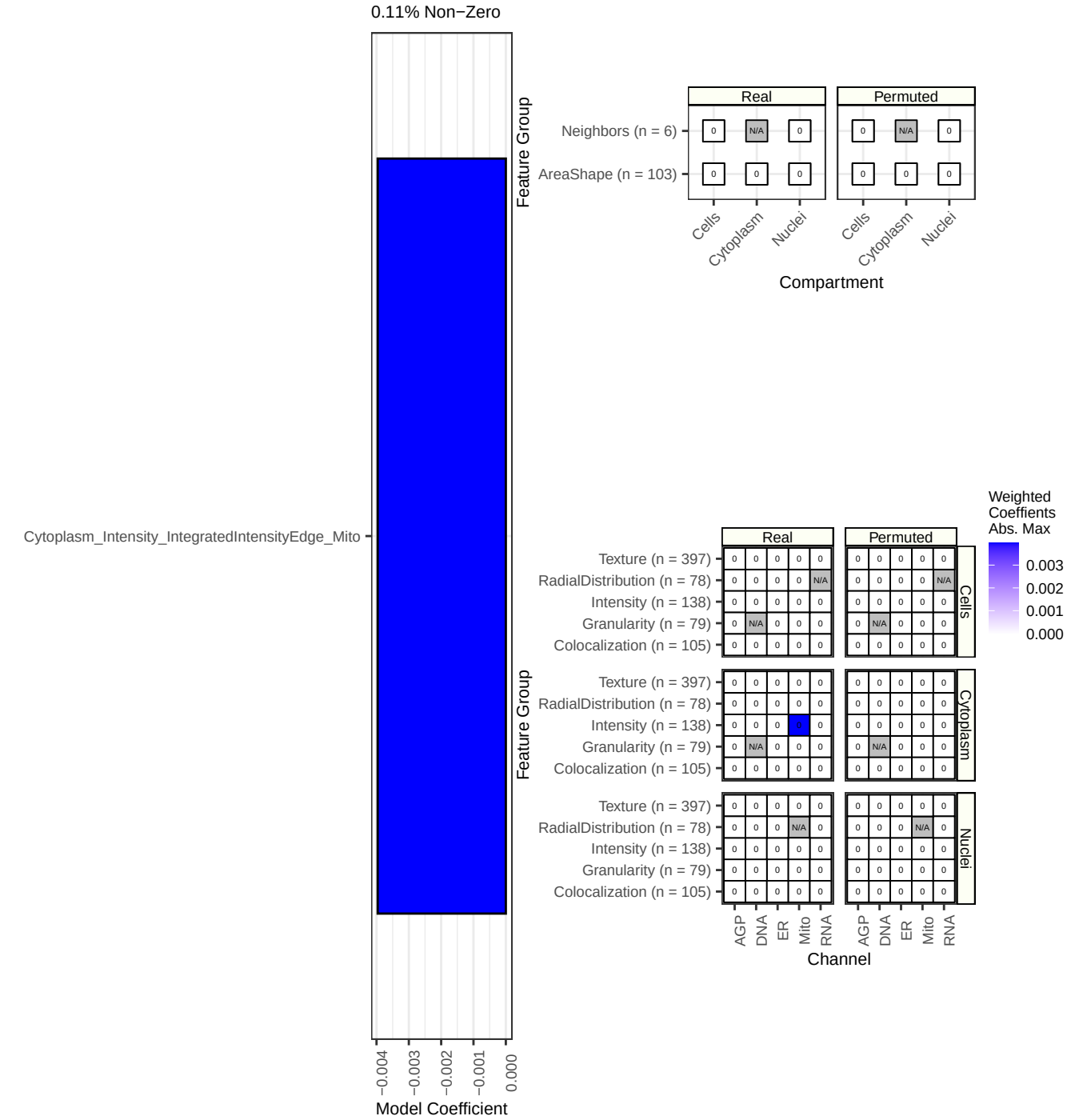
Weighted Coeffients Abs. Max

0

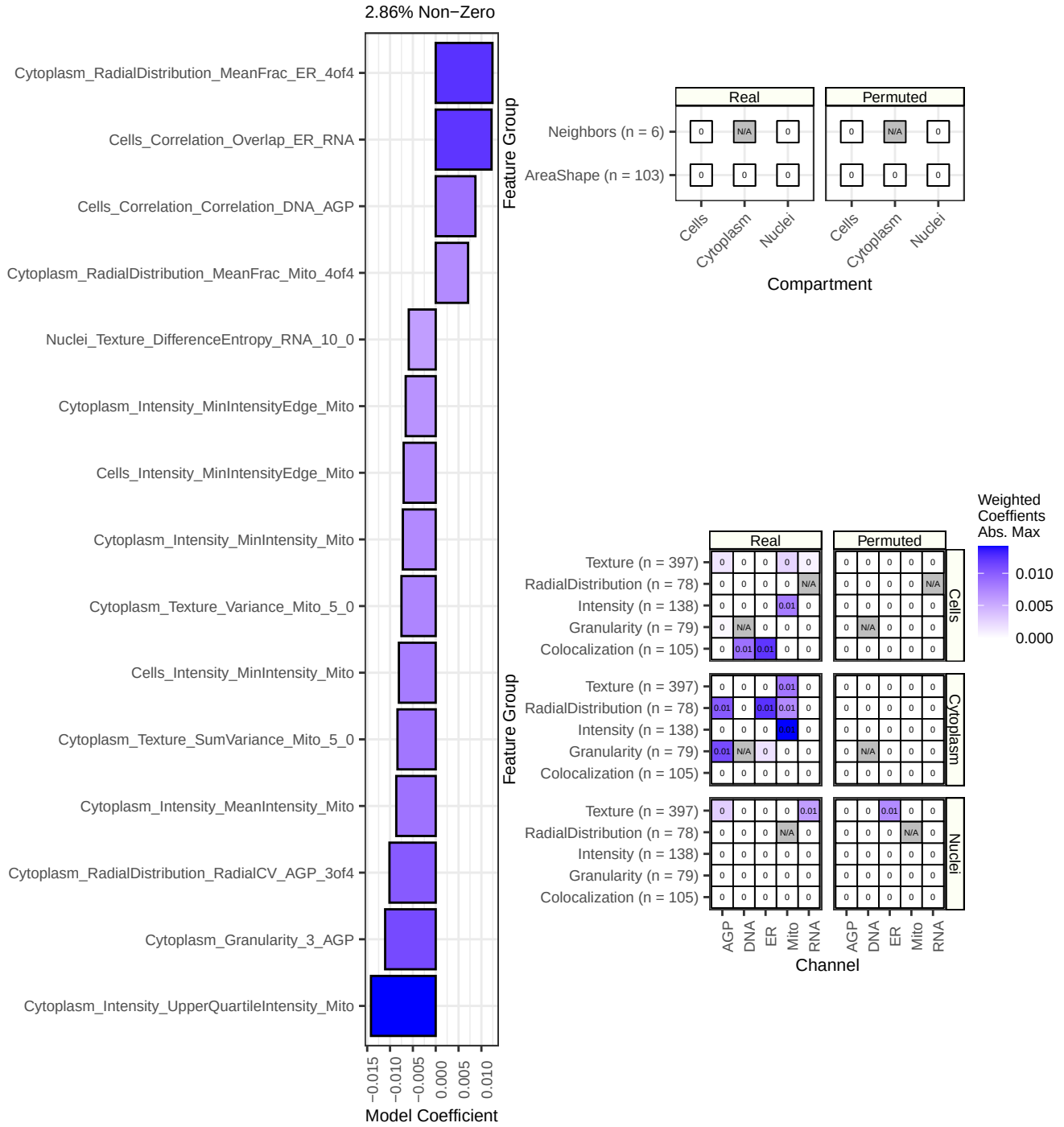
M − % High gH2AX Spots



M − # cells

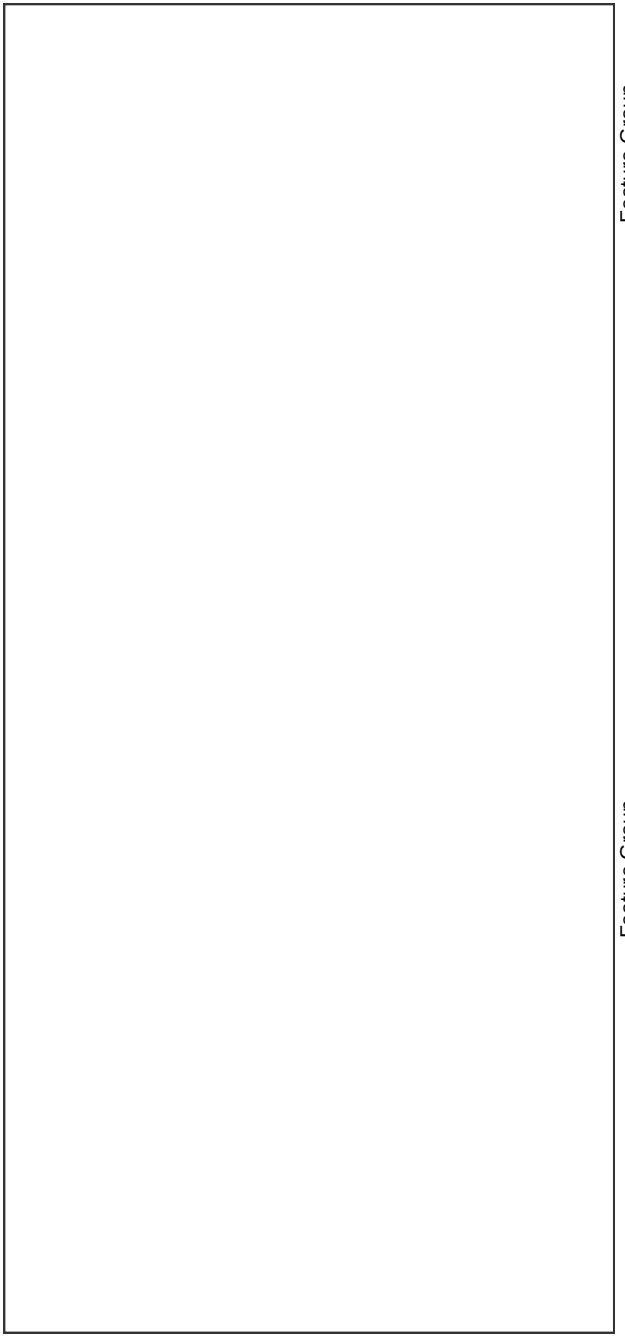

0.11% Non−Zero
Cytoplasm_Intensity_IntegratedIntensityEdge_Mito
Feature Group
−0.004
−0.003
−0.002
−0.001
0.000
Model Coefficient
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel
Weighted Coeffients Abs. Max
0.003
0.002
0.001
0.000

M − # of gH2AX Spots

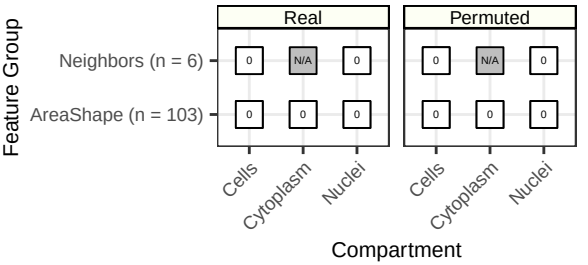


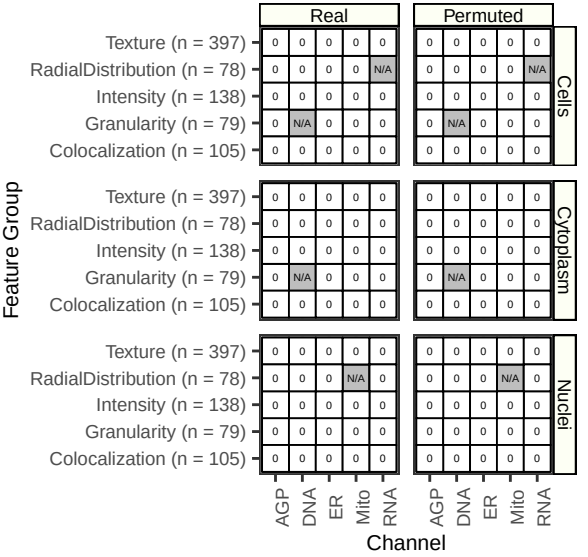
M − # of gH2AX Spots per Area of Nucleus

0% Non−Zero



Model Coefficient





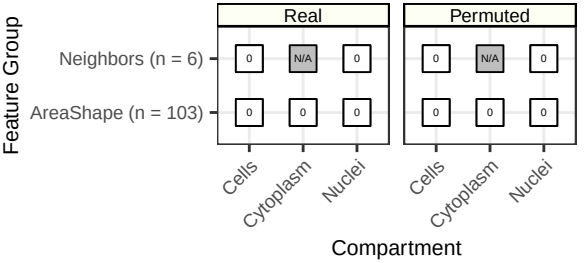
Weighted Coeffients Abs. Max

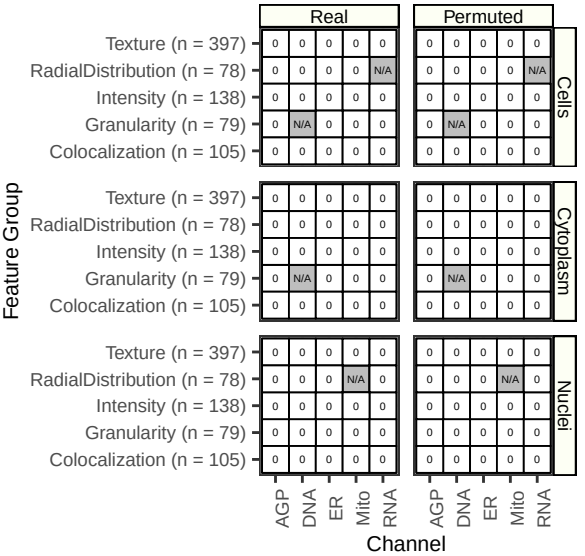
0

Polynuclear − % High gH2AX Spots

0% Non−Zero

Model Coefficient

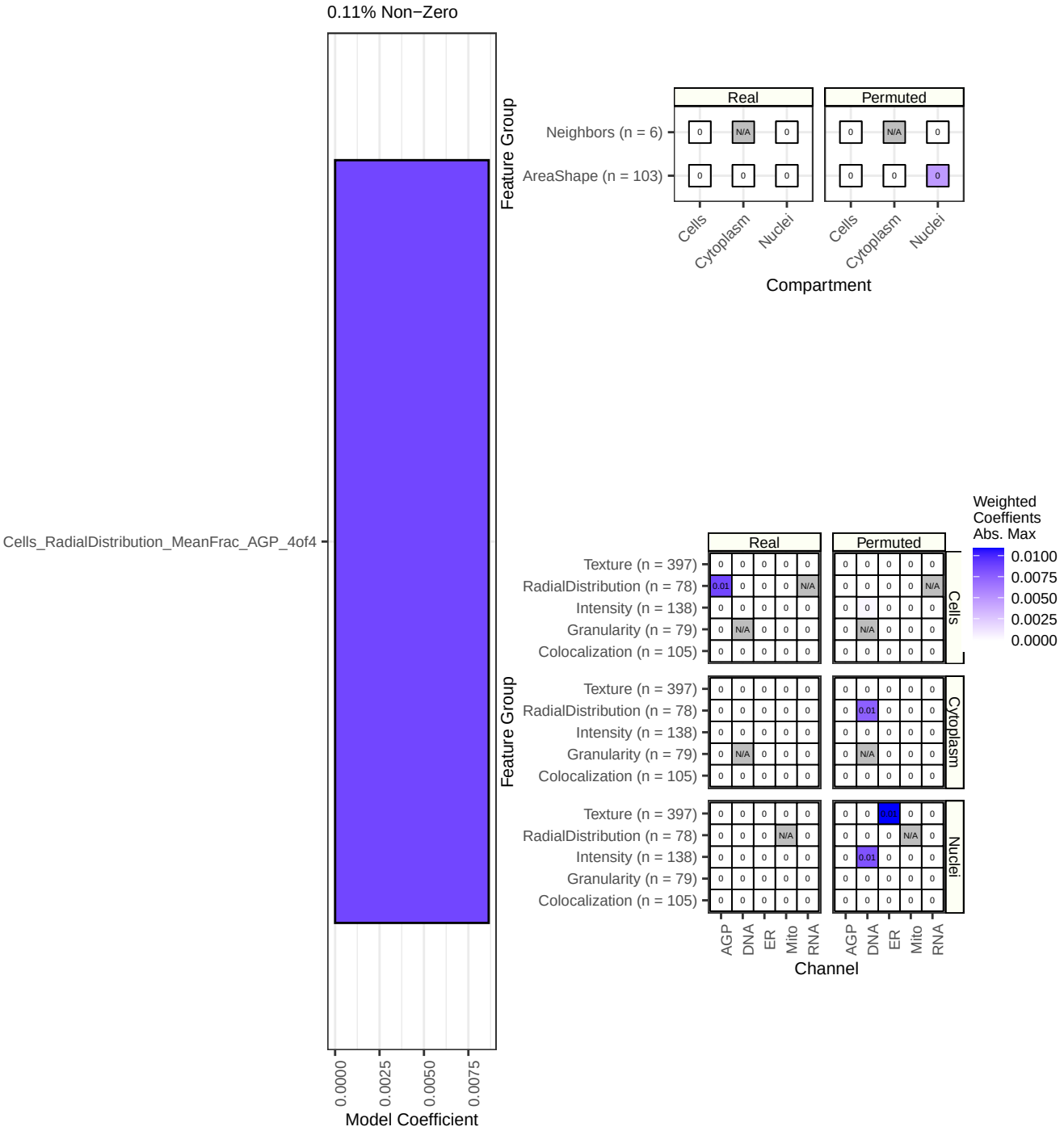




Weighted Coeffients Abs. Max

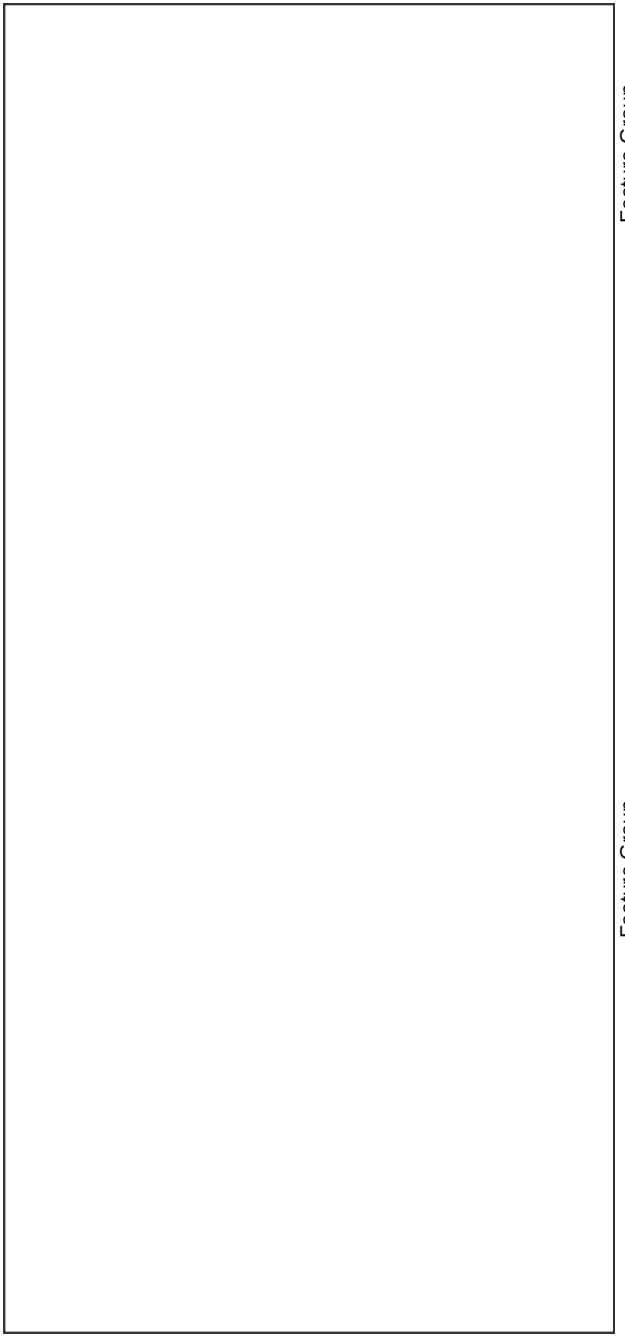
0

Polynuclear − # cells

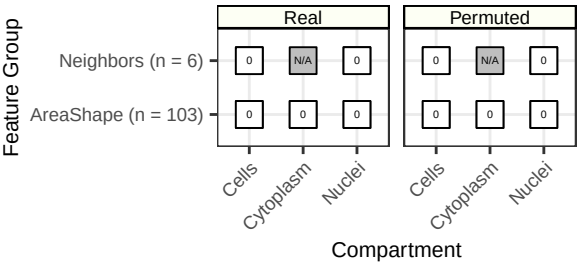


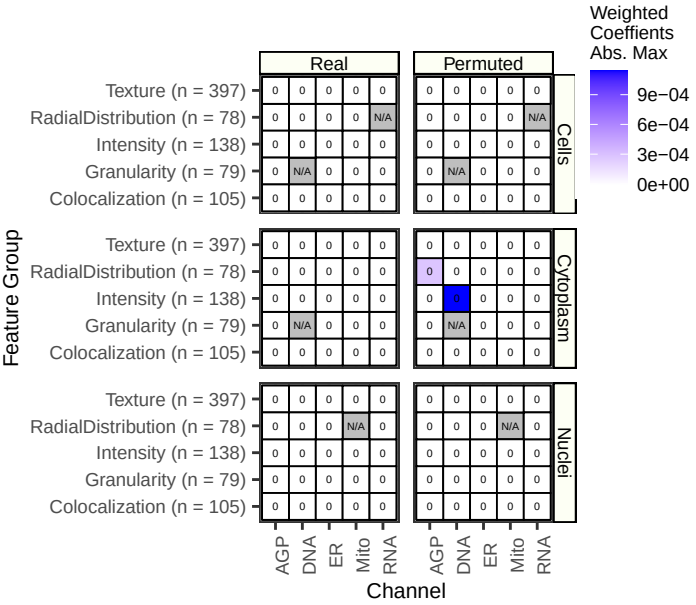
Polynuclear − # of gH2AX Spots

0% Non−Zero



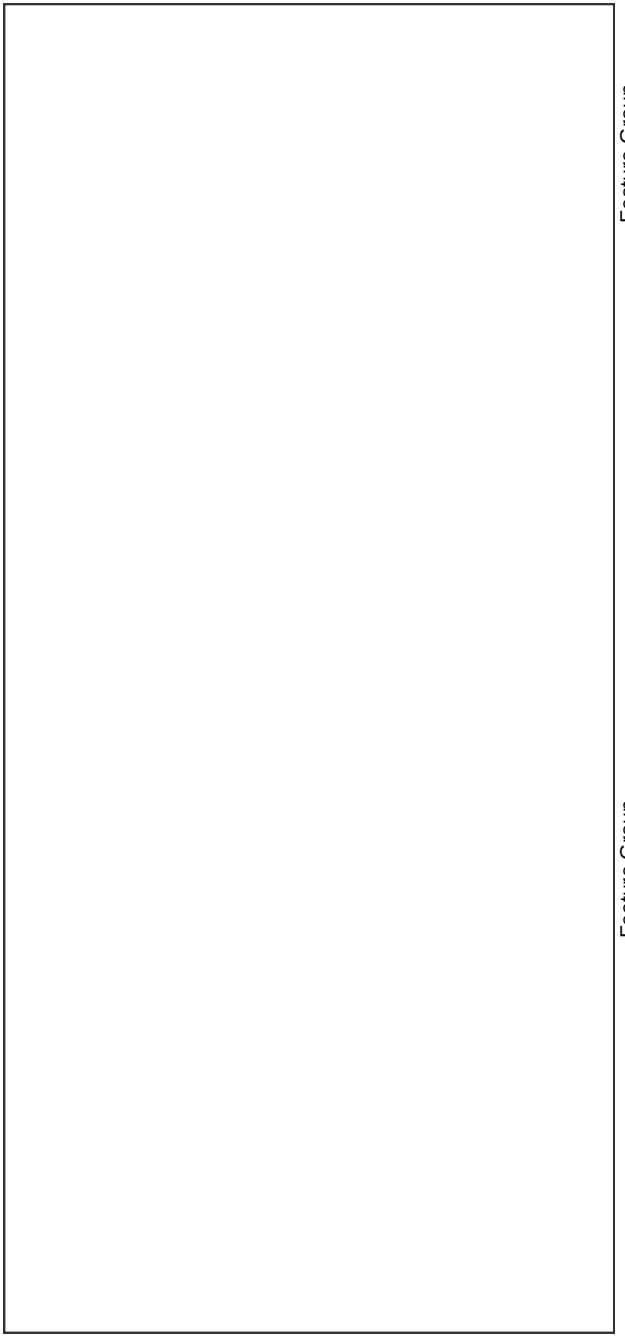
Model Coefficient



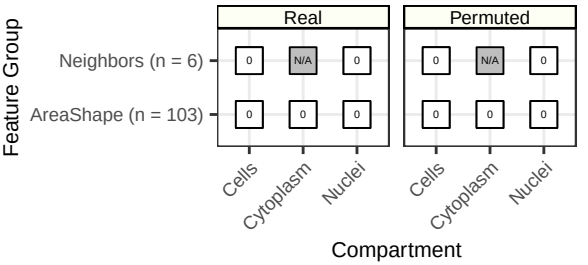


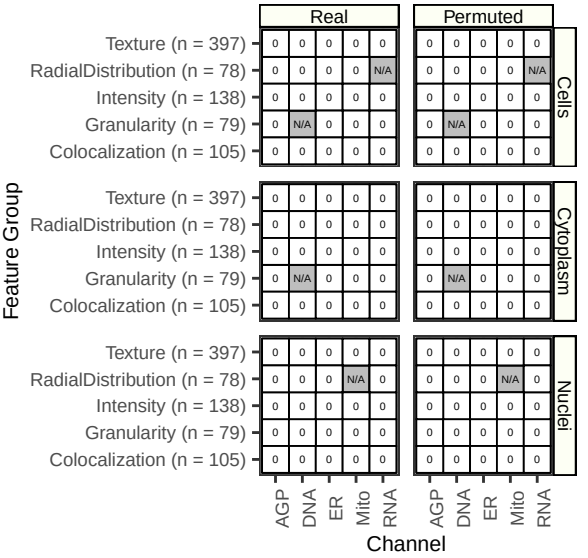
Polynuclear − # of gH2AX Spots per Area of Nucleus

0% Non−Zero



Model Coefficient

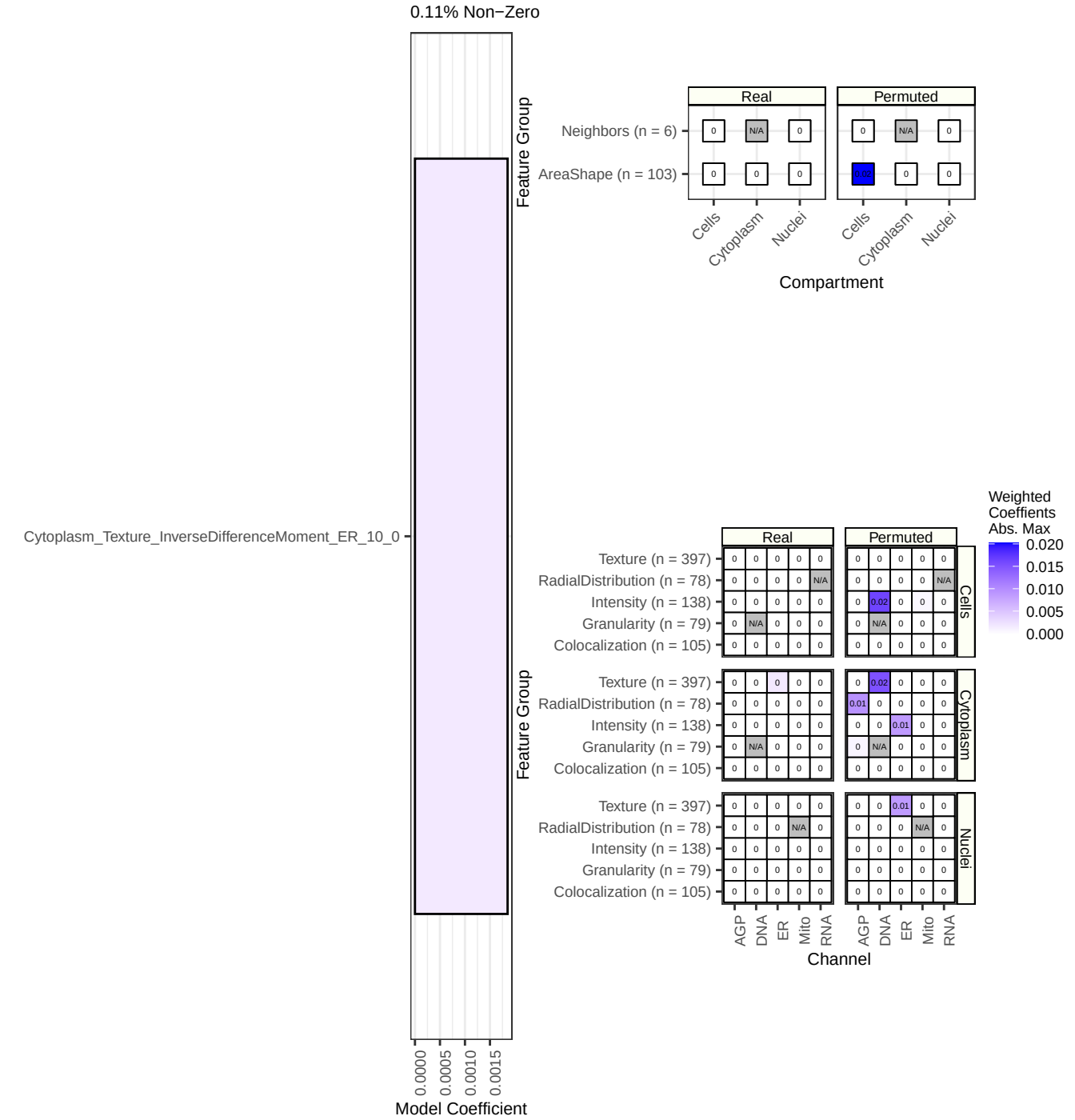




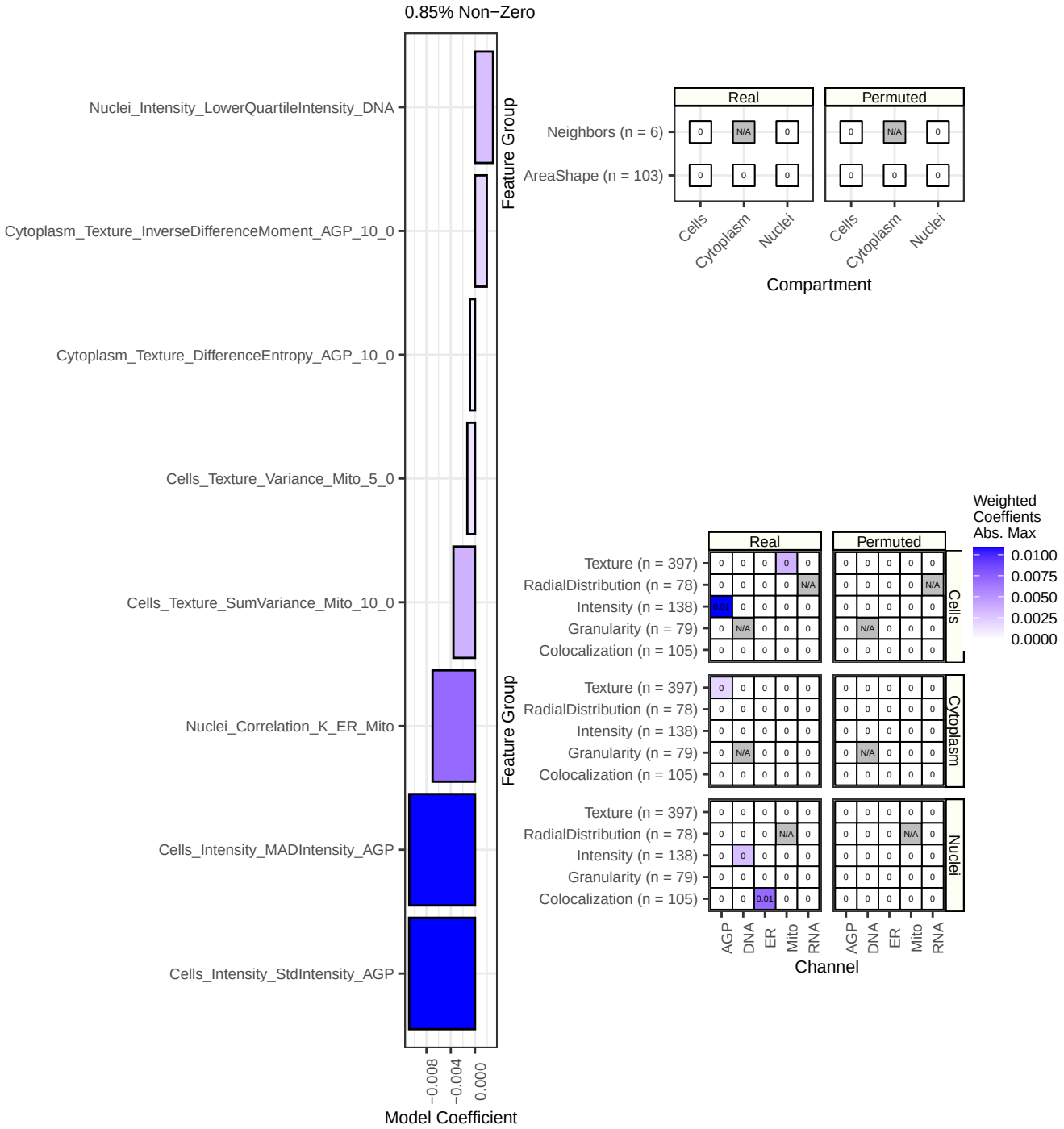
Weighted Coeffients Abs. Max

0

Polyploid − % High gH2AX Spots

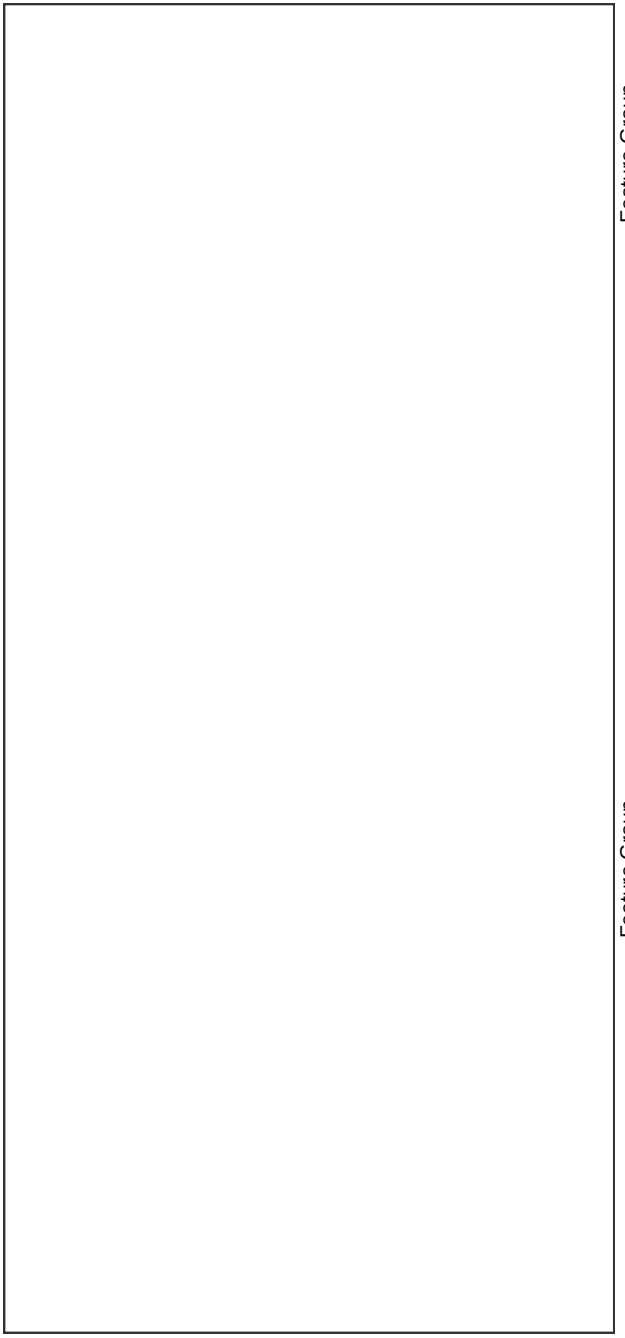


Polyploid − # cells

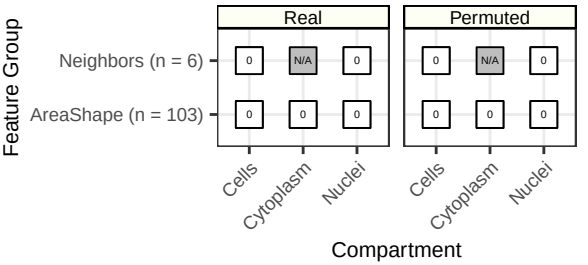


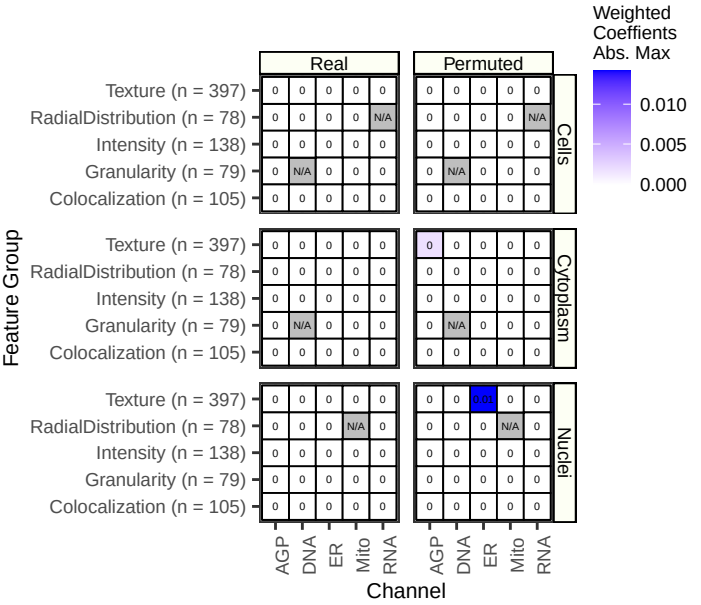
Polyploid − # of gH2AX Spots

0% Non−Zero



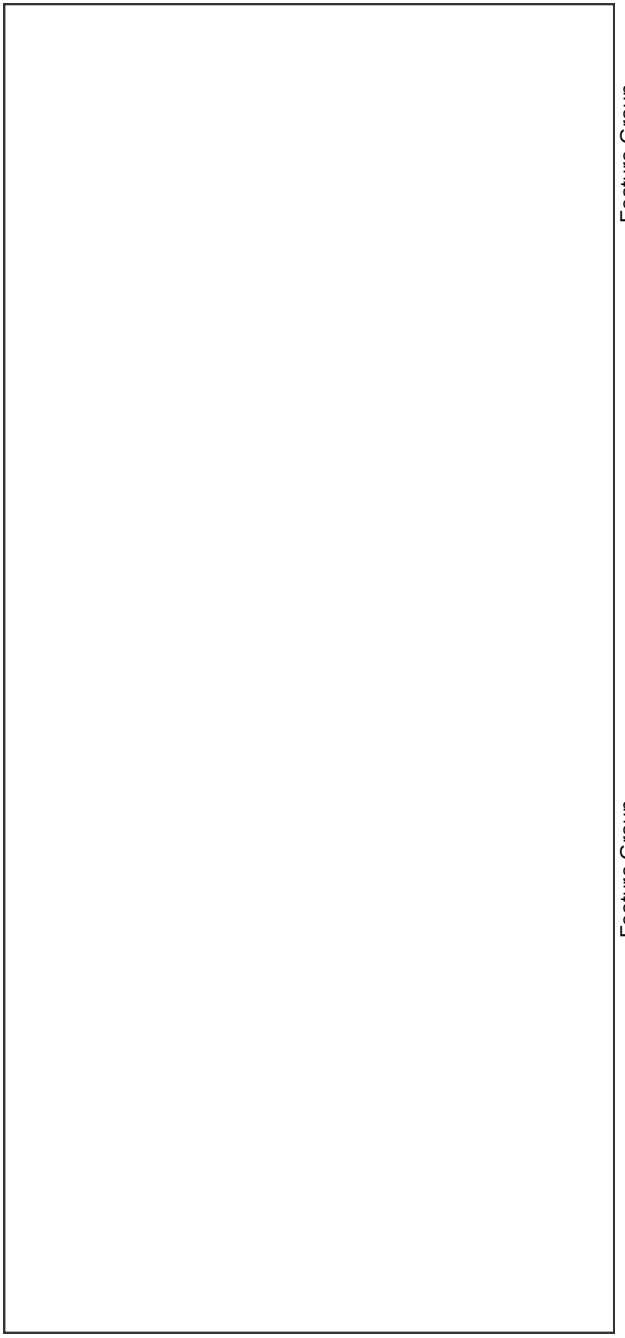
Model Coefficient



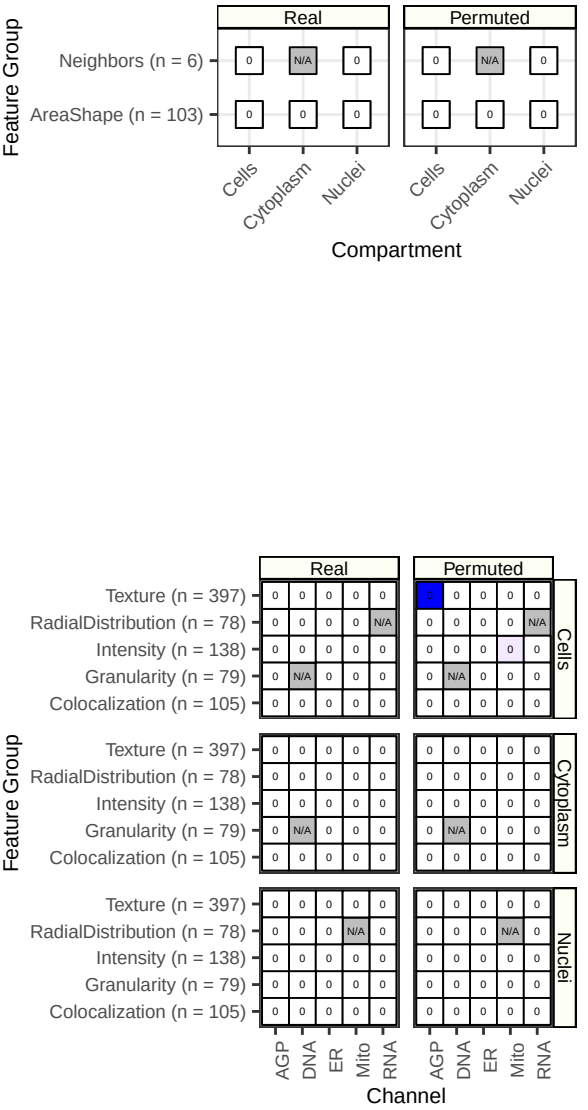


Polyploid − # of gH2AX Spots per Area of Nucleus

0% Non−Zero

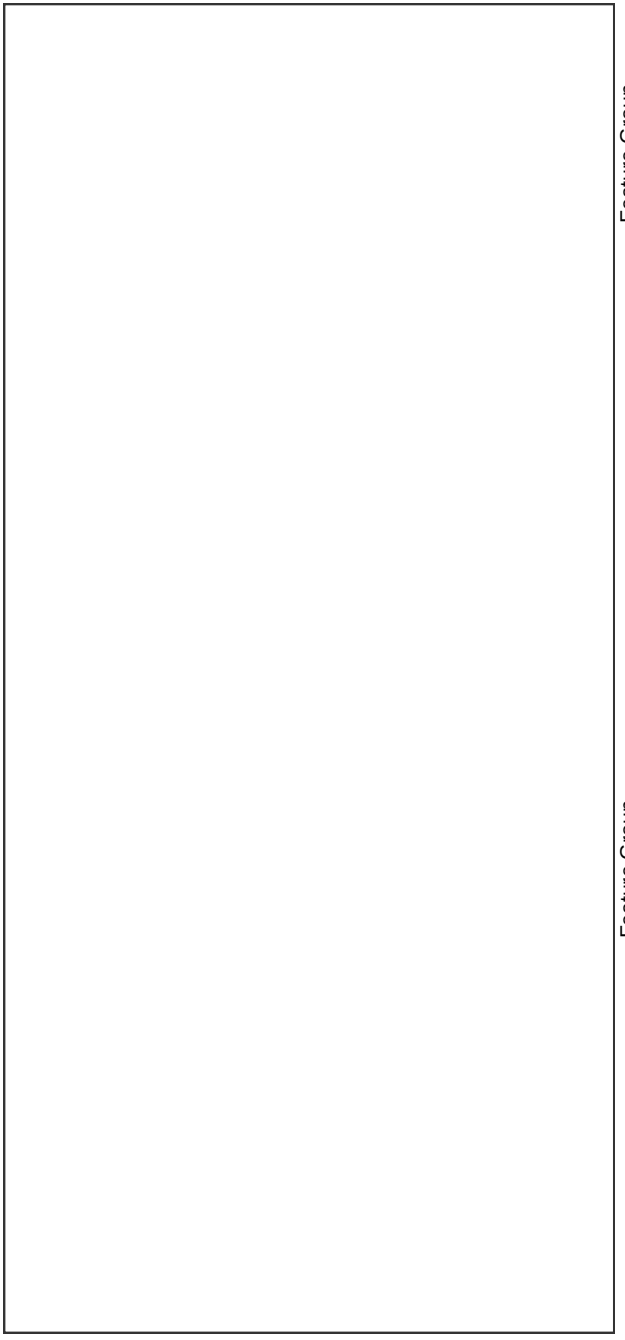


Model Coefficient

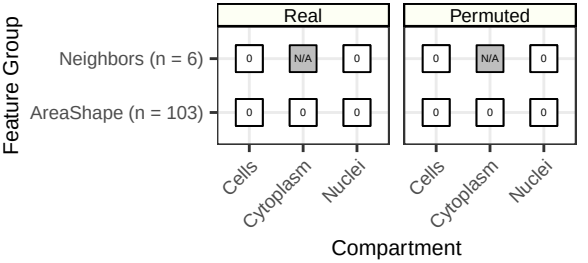


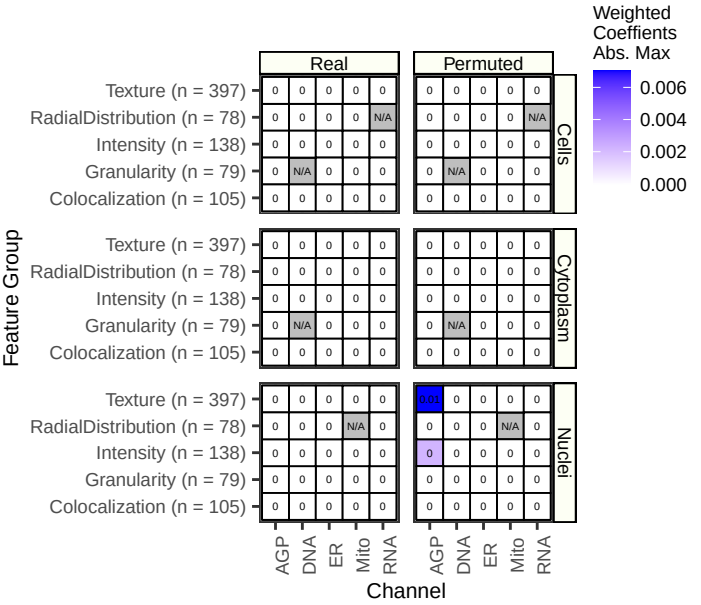
S − % High gH2AX Spots

0% Non−Zero

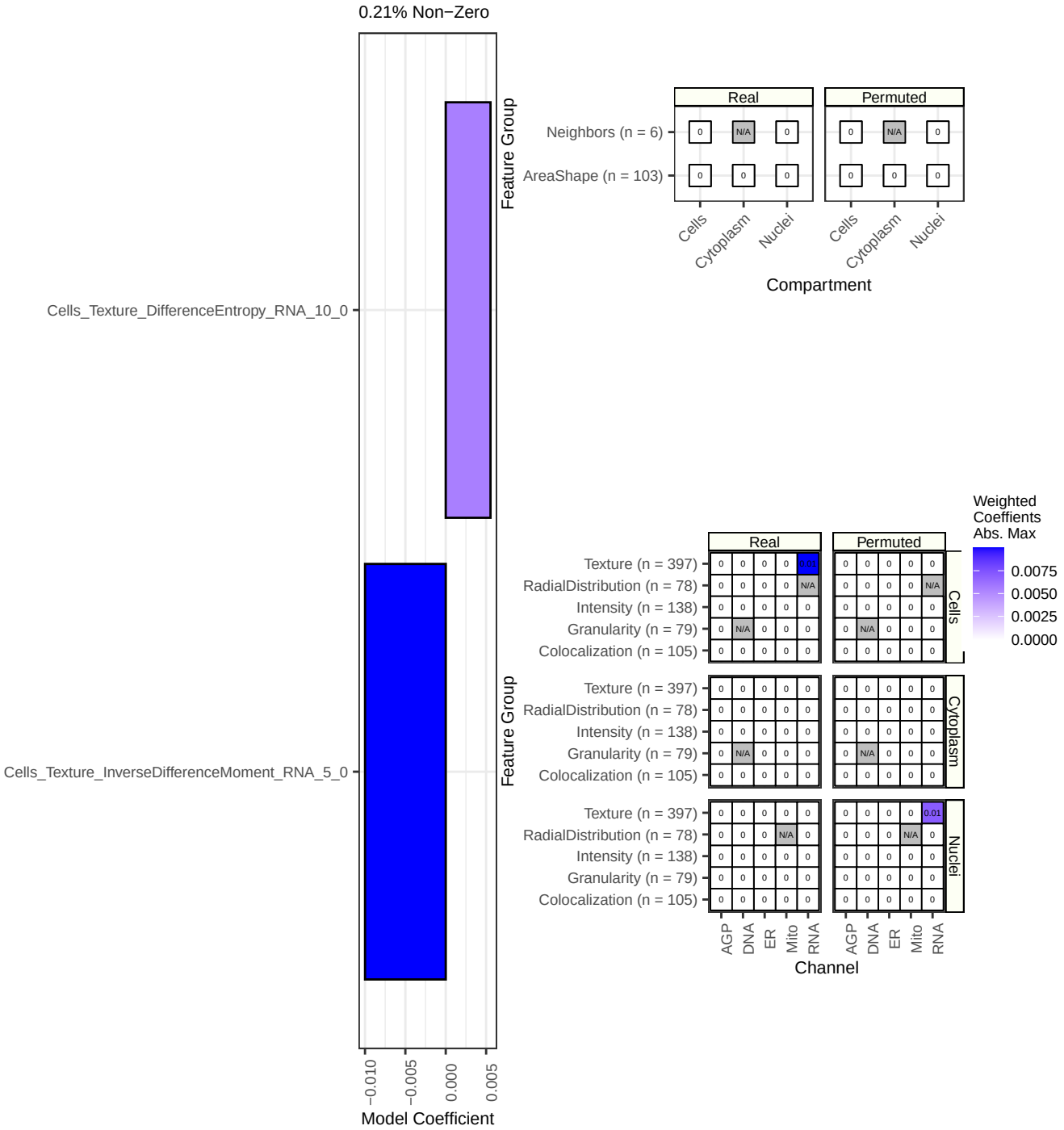


Model Coefficient

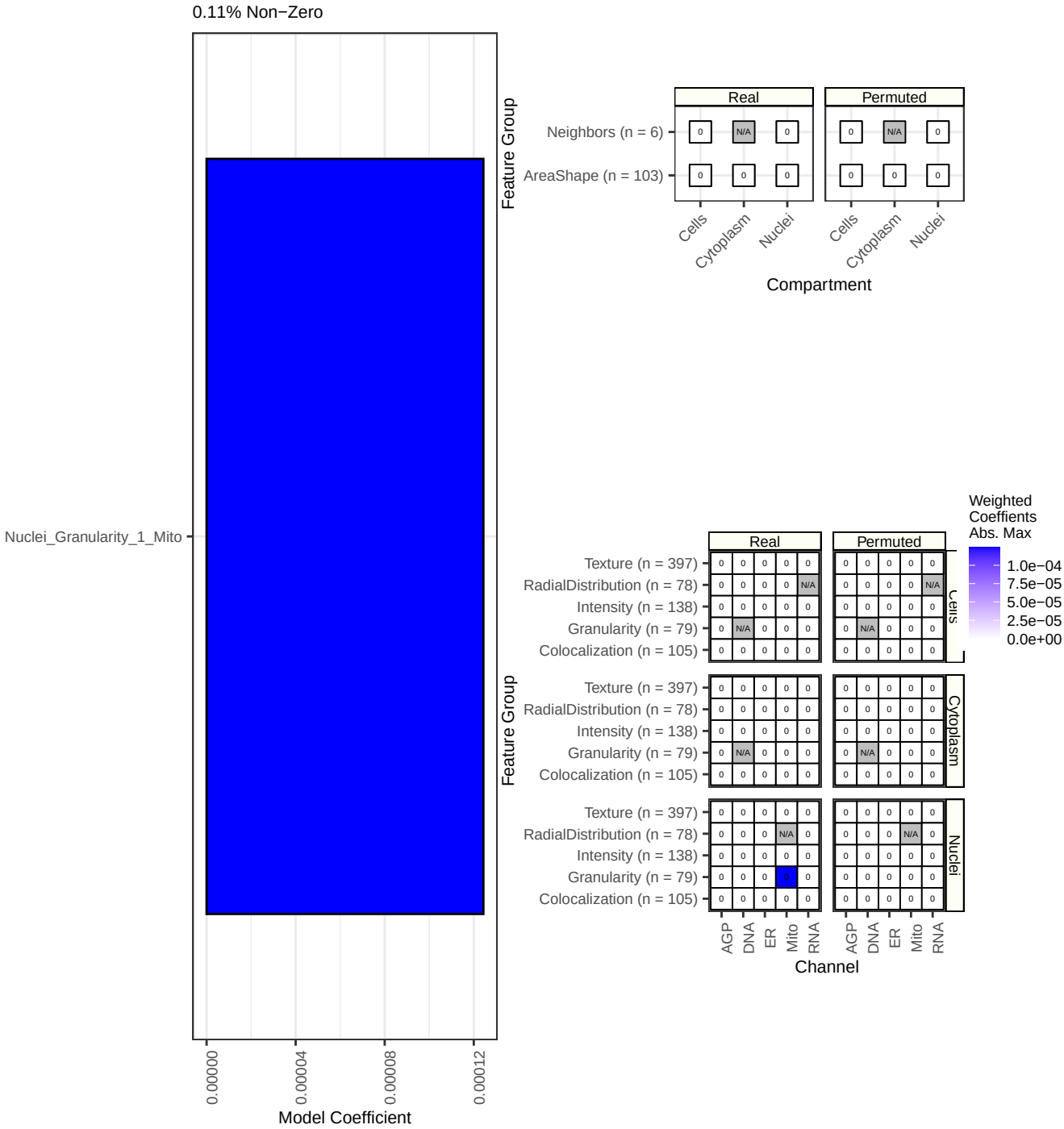




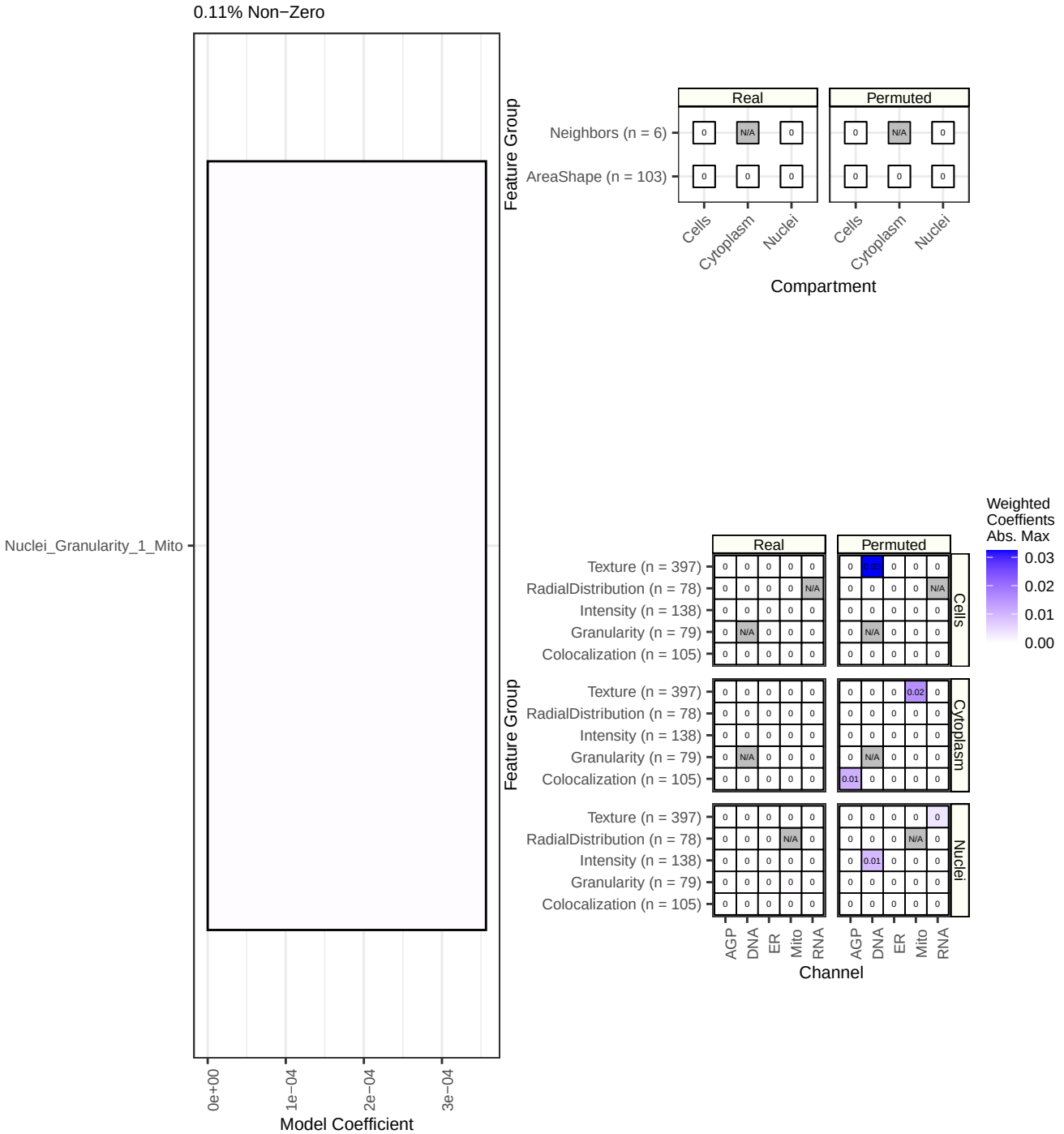
S − Intensity Nucleus EdU Mean



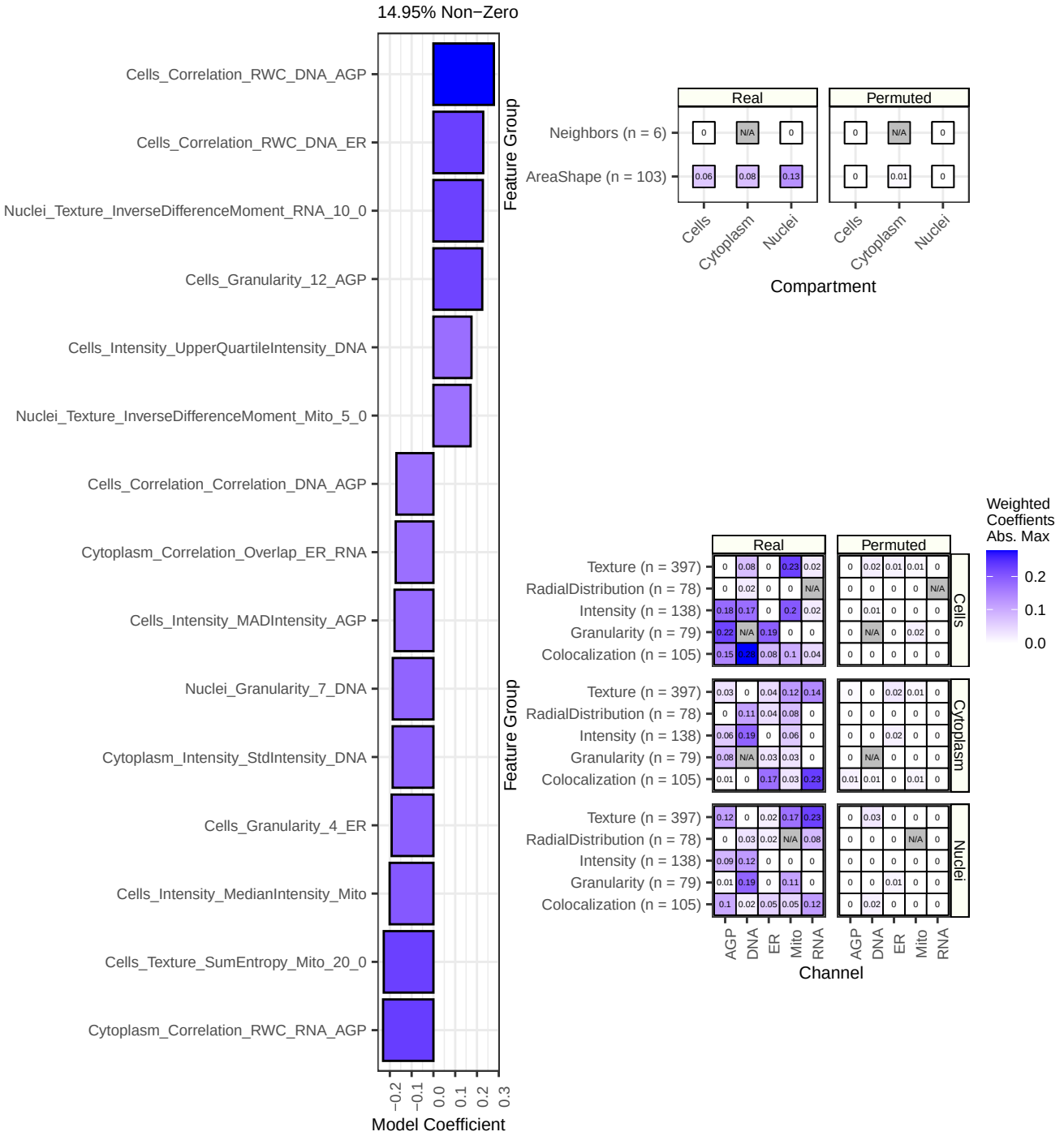
S − Intensity Nucleus EdU Sum



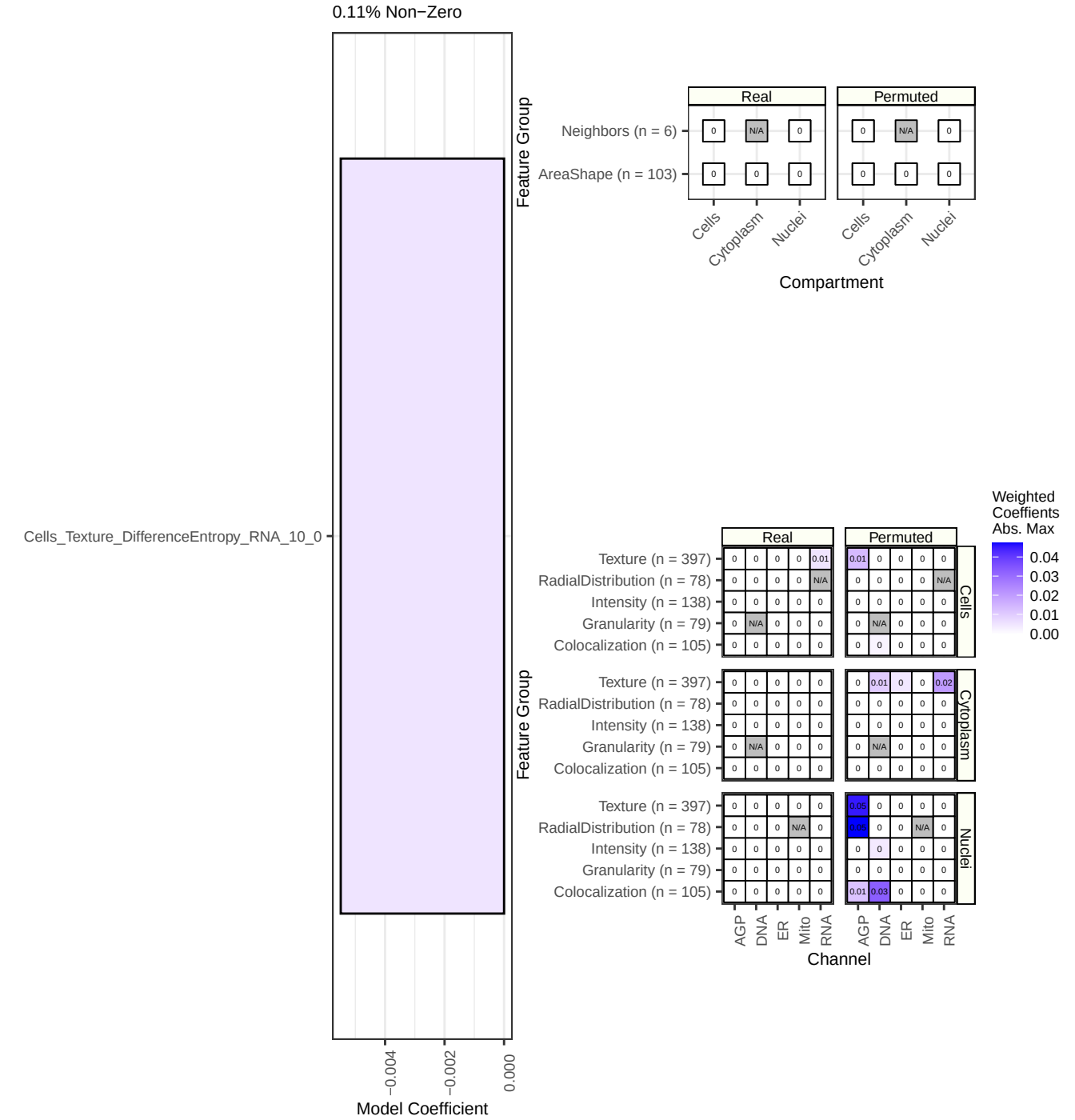
S − # cells


0.11% Non−Zero
Nuclei_Granularity_1_Mito
0e+00
1e−04
2e−04
3e−04
Model Coefficient
Feature Group
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel
Weighted Coeffients Abs. Max
0.03
0.02
0.01
0.00

S − # of gH2AX Spots



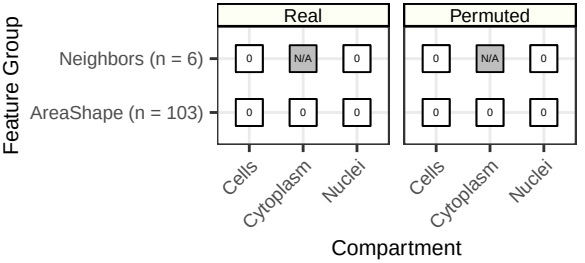
S − # of gH2AX Spots per Area of Nucleus

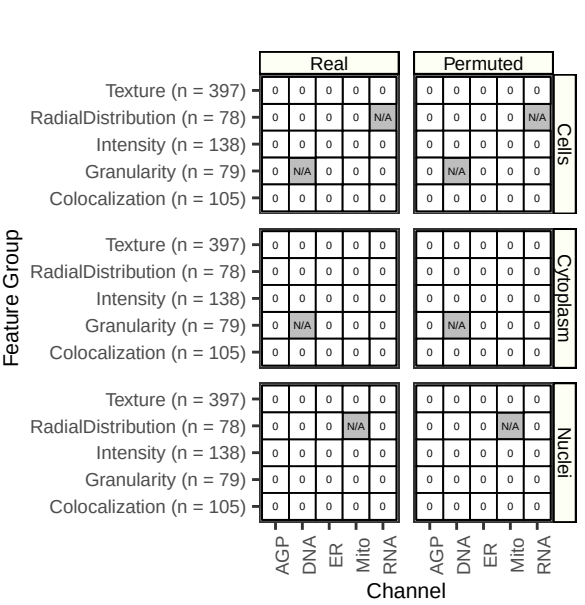


VB − Infection Efficiency

0% Non−Zero

Model Coefficient

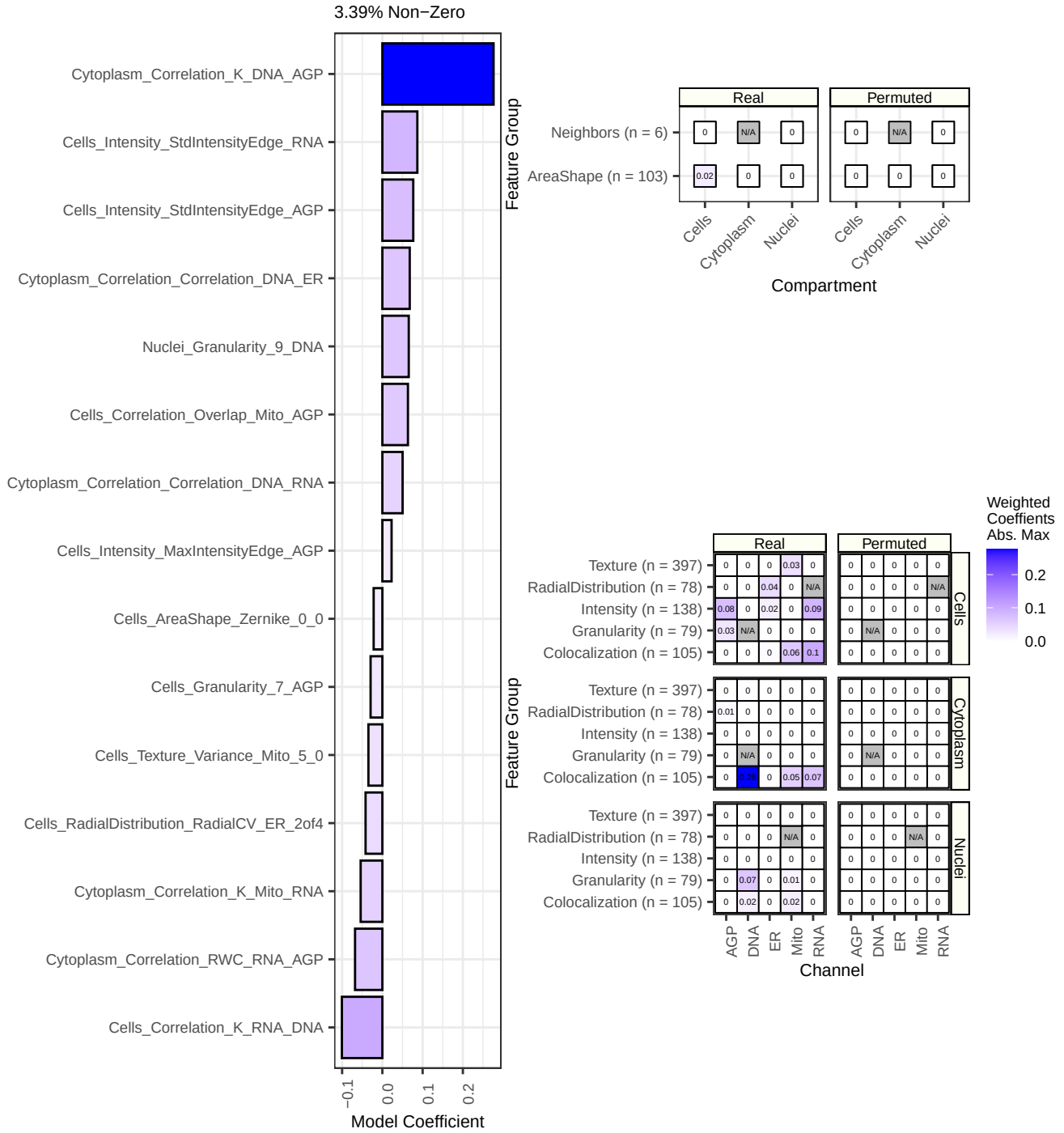




Weighted Coeffients Abs. Max

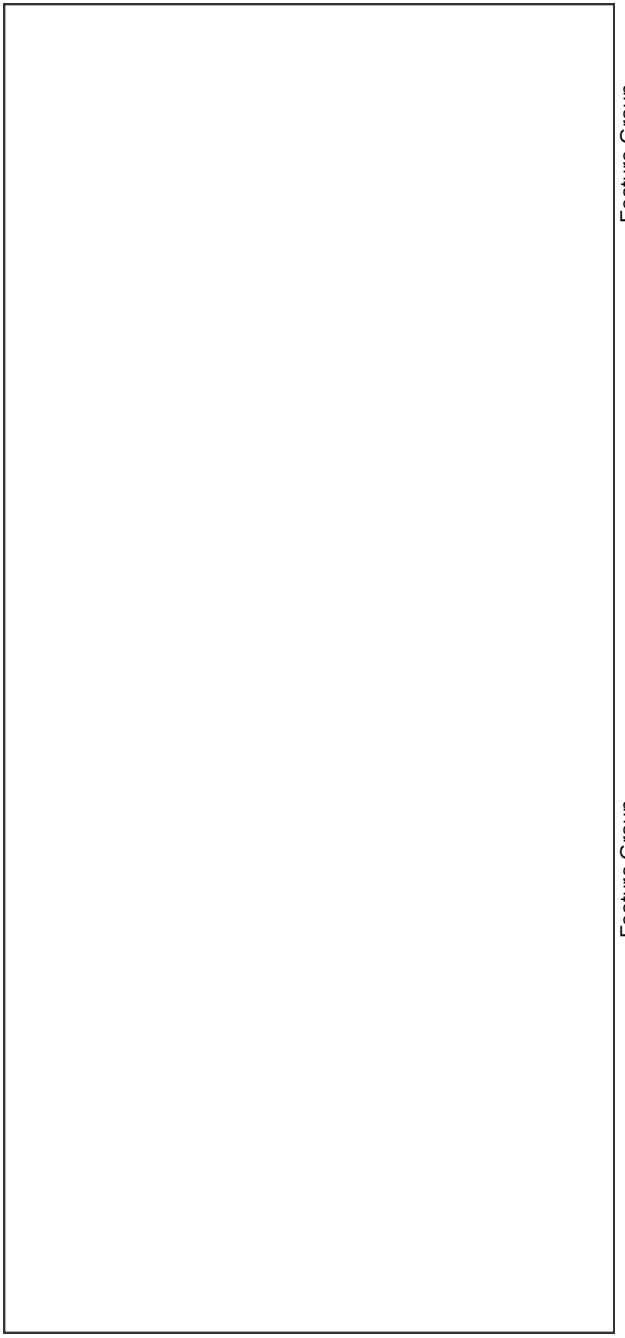
0

Live Cell Area

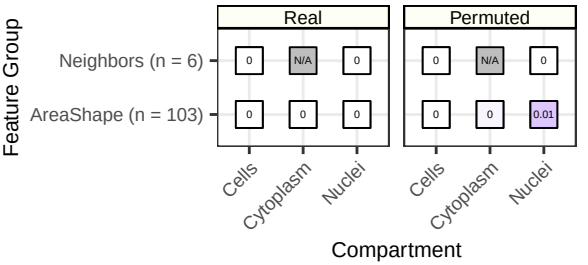


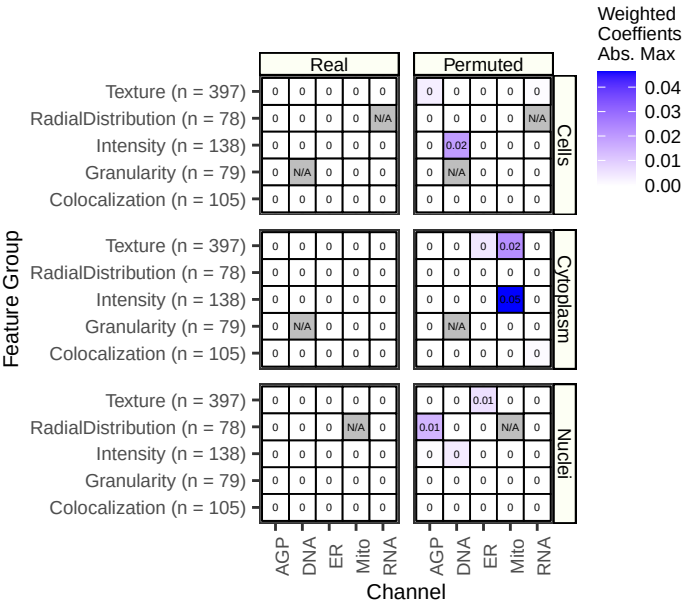
Live Cell Roundness

0% Non−Zero

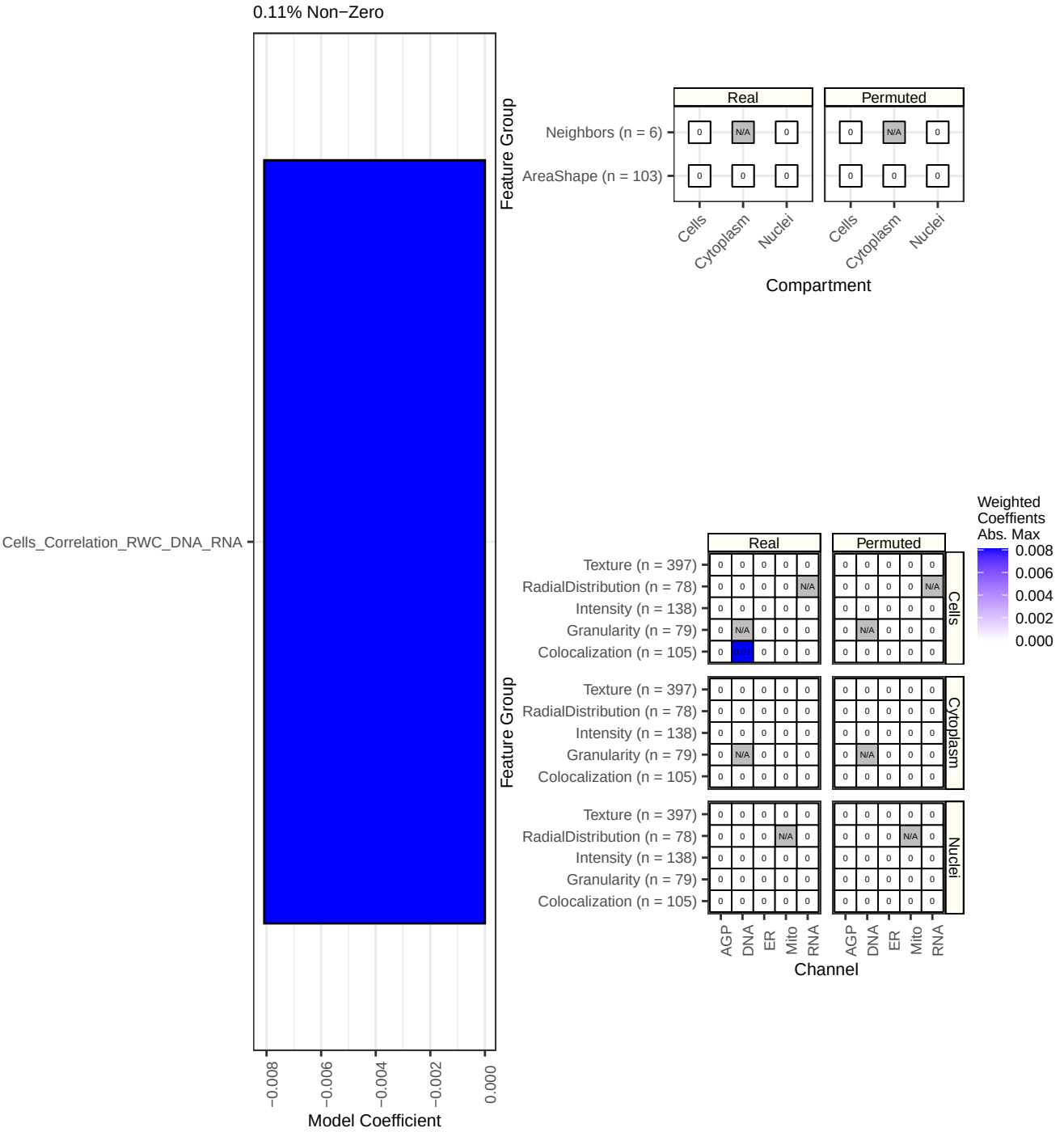


Model Coefficient

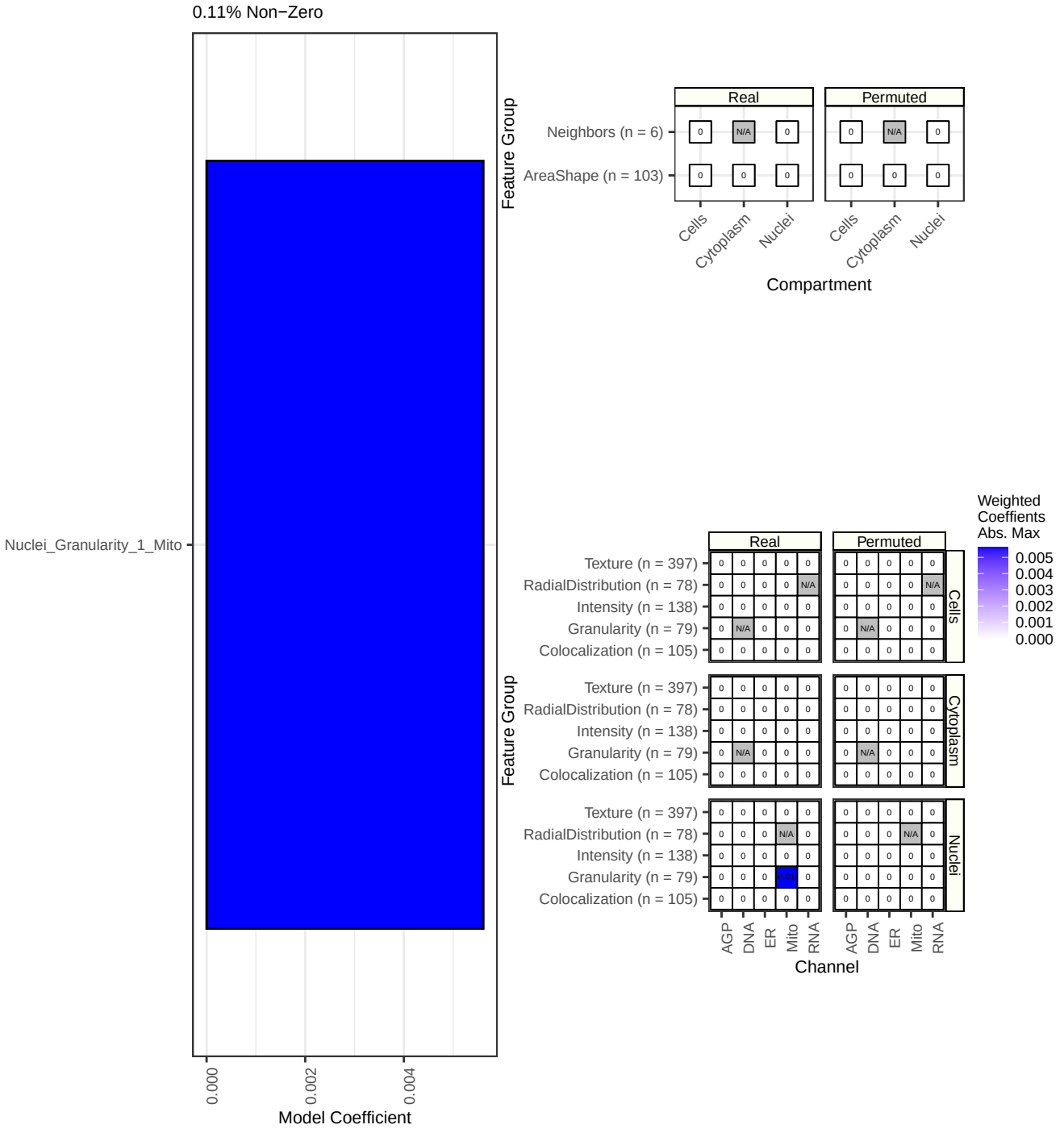




Live Width / Length

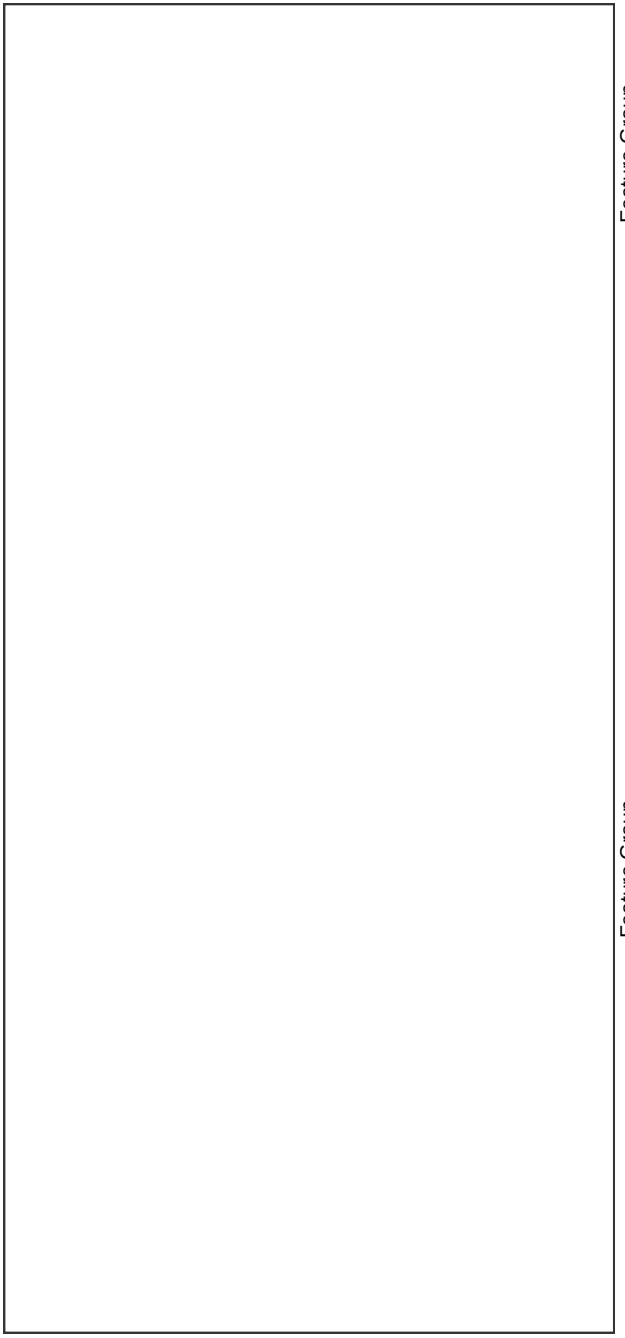


Live Cells

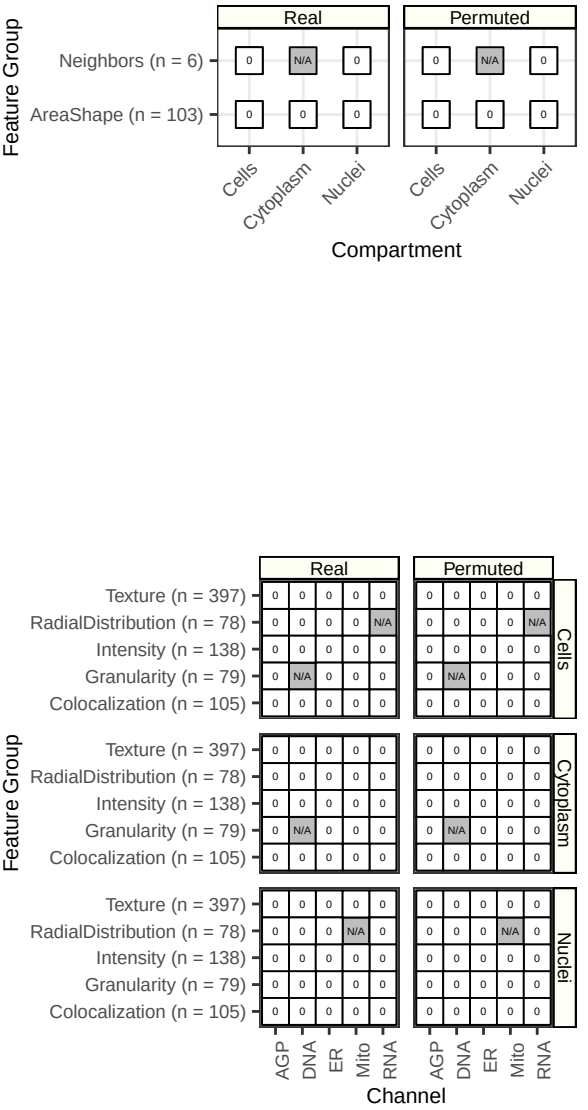

0.11% Non−Zero
Nuclei_Granularity_1_Mito
0.000
0.002
0.004
Model Coefficient
Feature Group
Real
Permuted
Neighbors (n = 6)
AreaShape (n = 103)
Cells
Cytoplasm
Nuclei
Compartment
Texture (n = 397)
RadialDistribution (n = 78)
Intensity (n = 138)
Granularity (n = 79)
Colocalization (n = 105)
AGP
DNA
ER
Mito
RNA
Channel
Weighted Coeffients Abs. Max
0.005
0.004
0.003
0.002
0.001
0.000

% All Apoptosis (CASP+)

0% Non−Zero

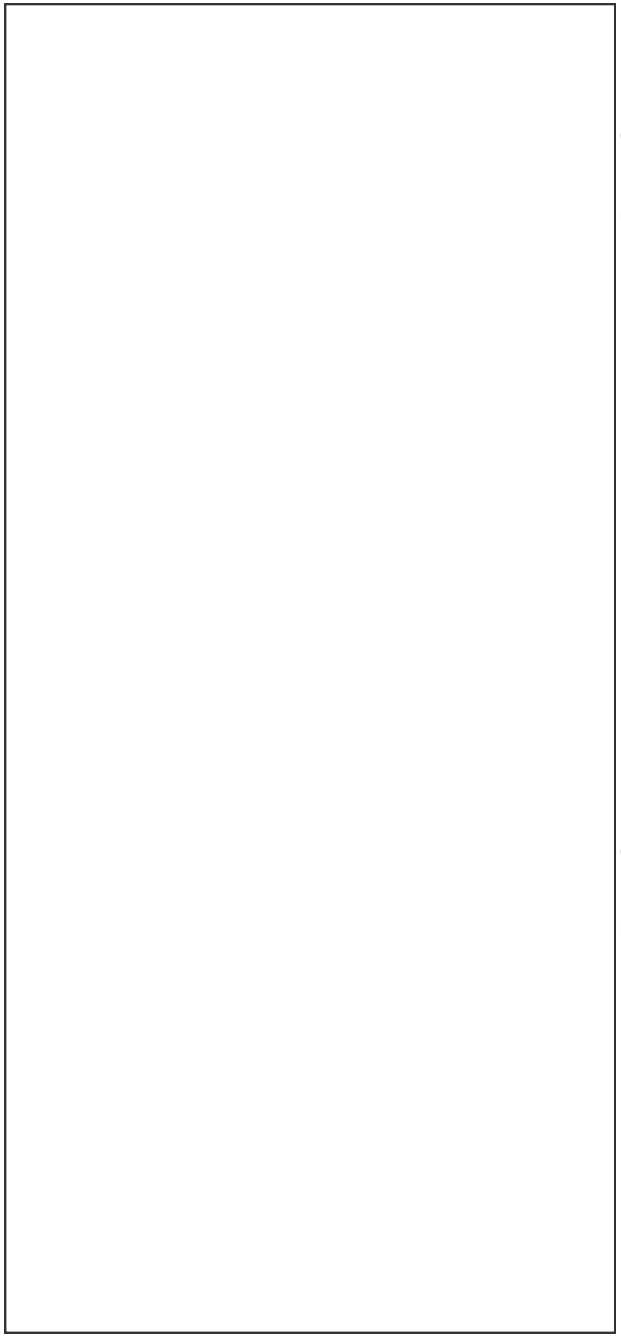


Model Coefficient

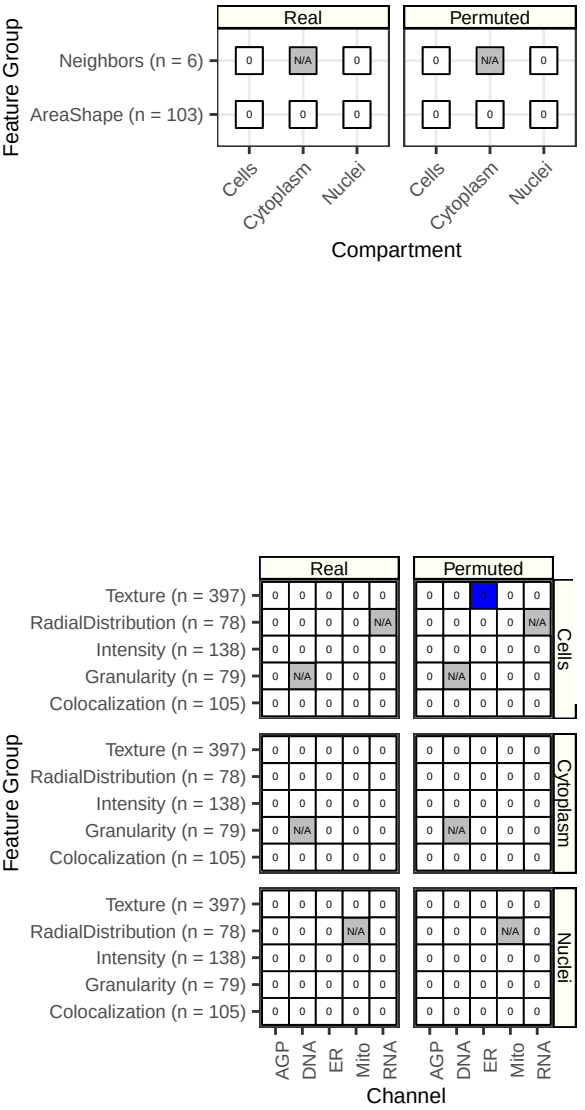


% Caspase / % Dead Only

0% Non−Zero

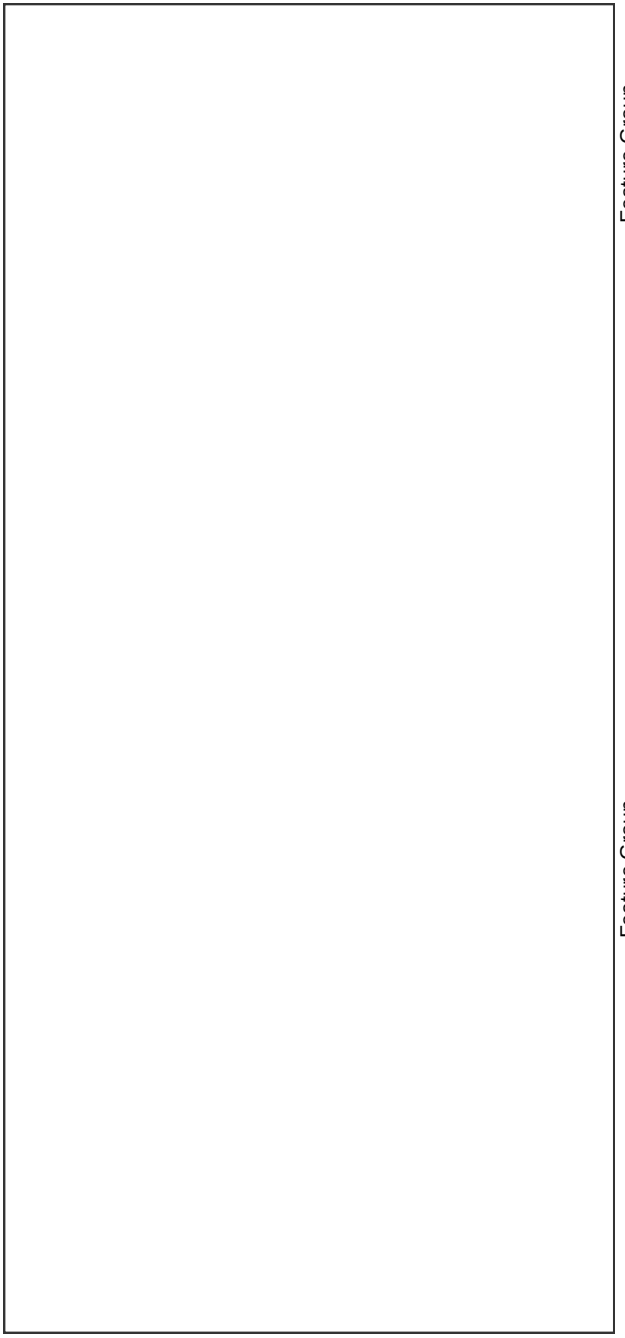


Model Coefficient

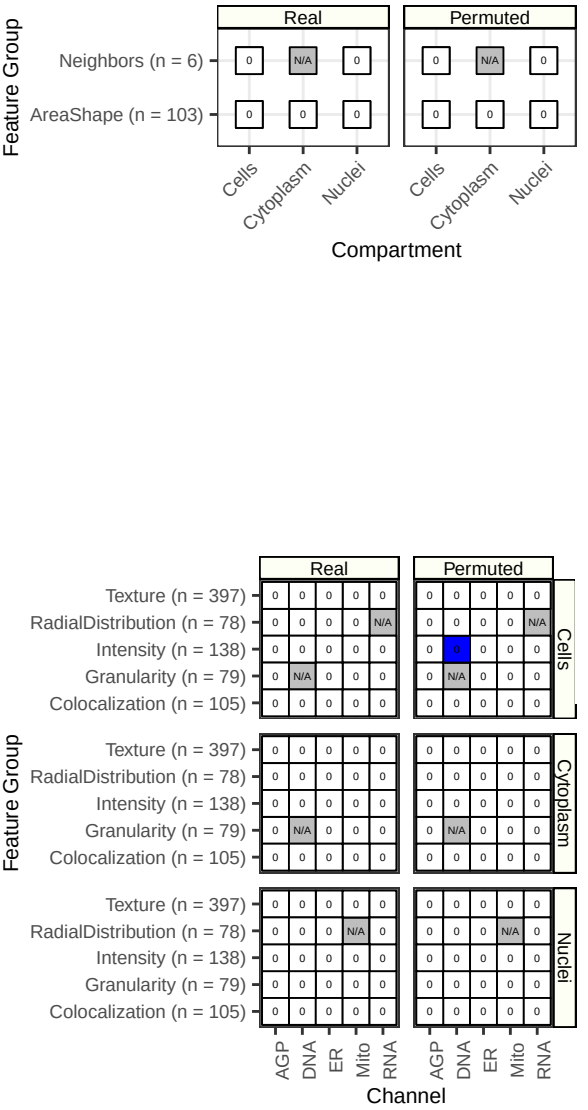


% All Dead (DRAQ7+)

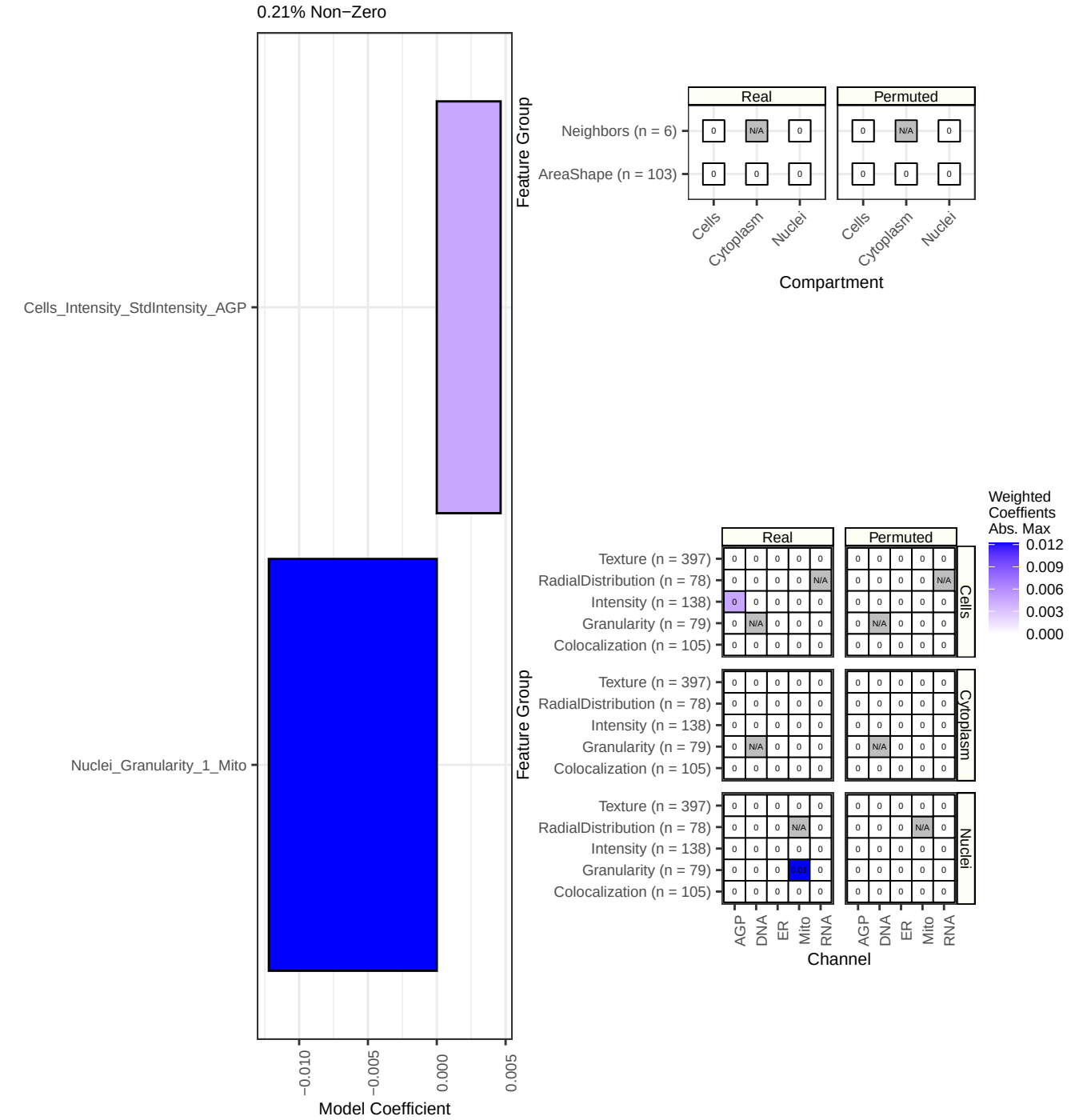
0% Non−Zero



Model Coefficient

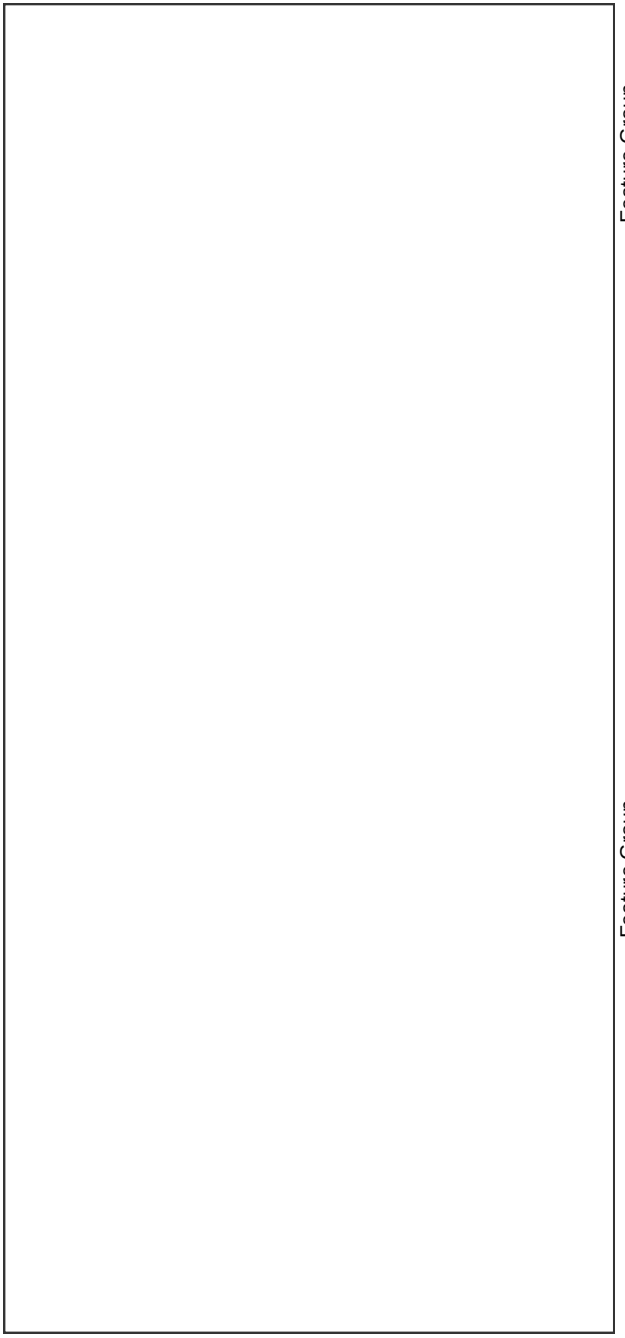


% Dead Only (CASP−; DRAQ7+)

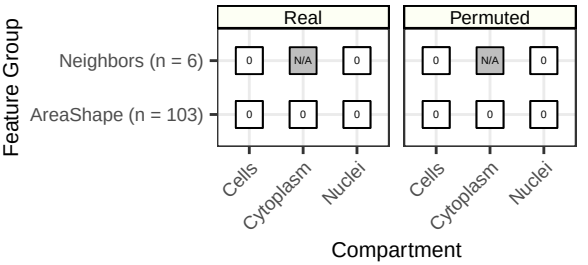


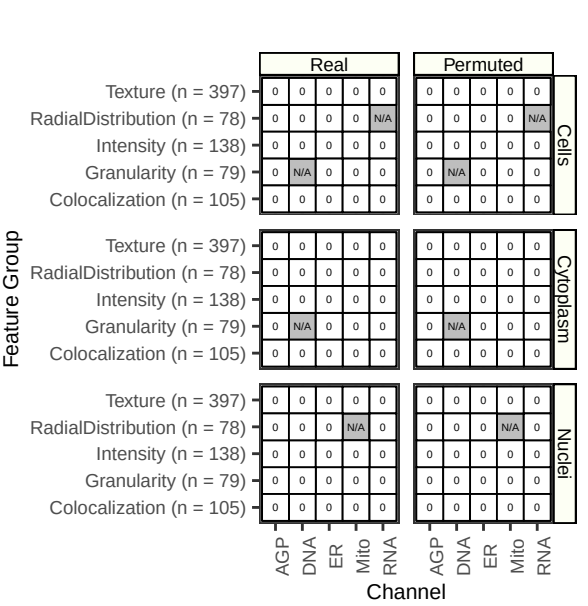
% Early Apoptosis (CASP+; DRAQ7−)

0% Non−Zero



Model Coefficient

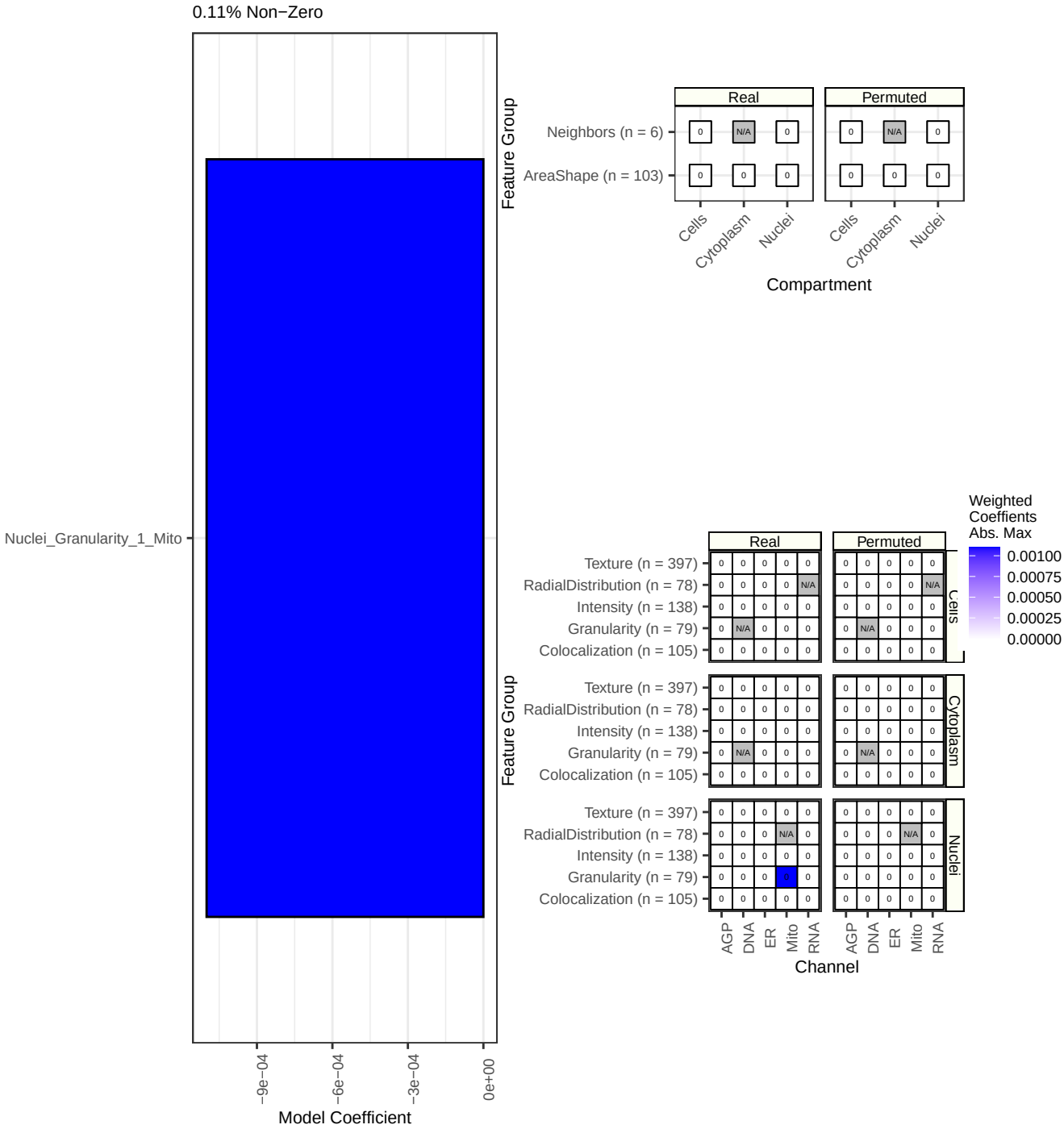




Weighted Coeffients Abs. Max

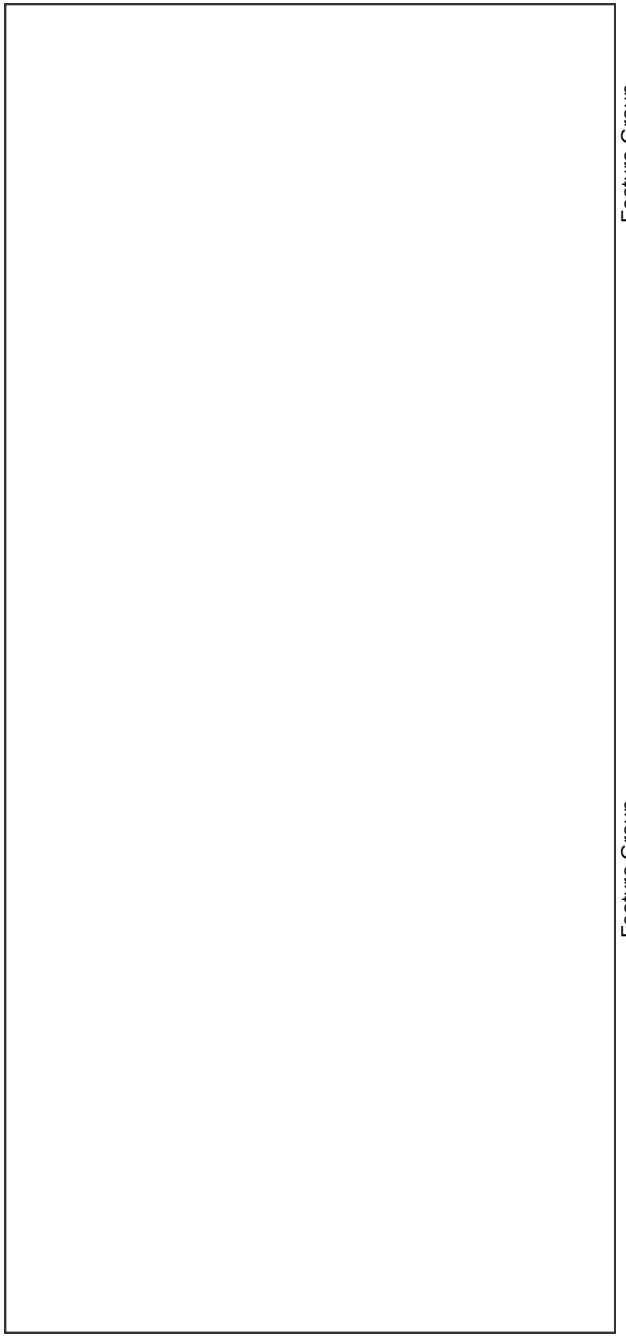
0

% Late Apoptosis (CASP+; DRAQ7+)

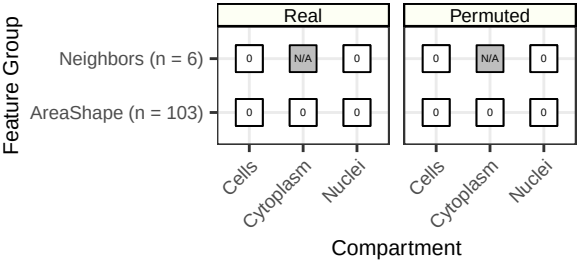


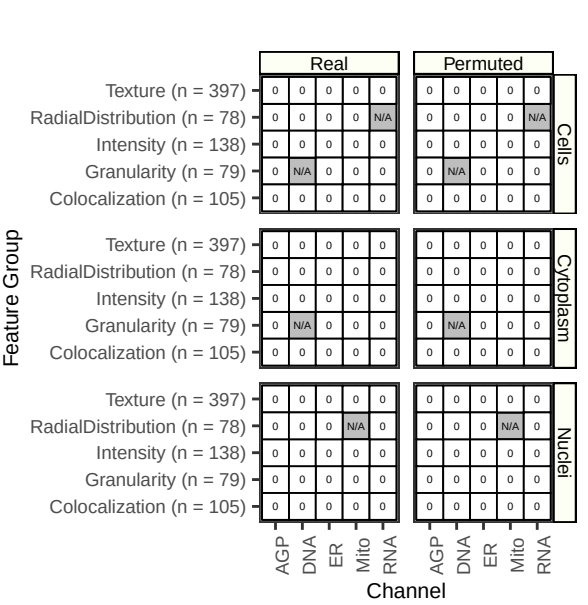
% Live (DRAQ7−; CASP−)

0% Non−Zero



Model Coefficient



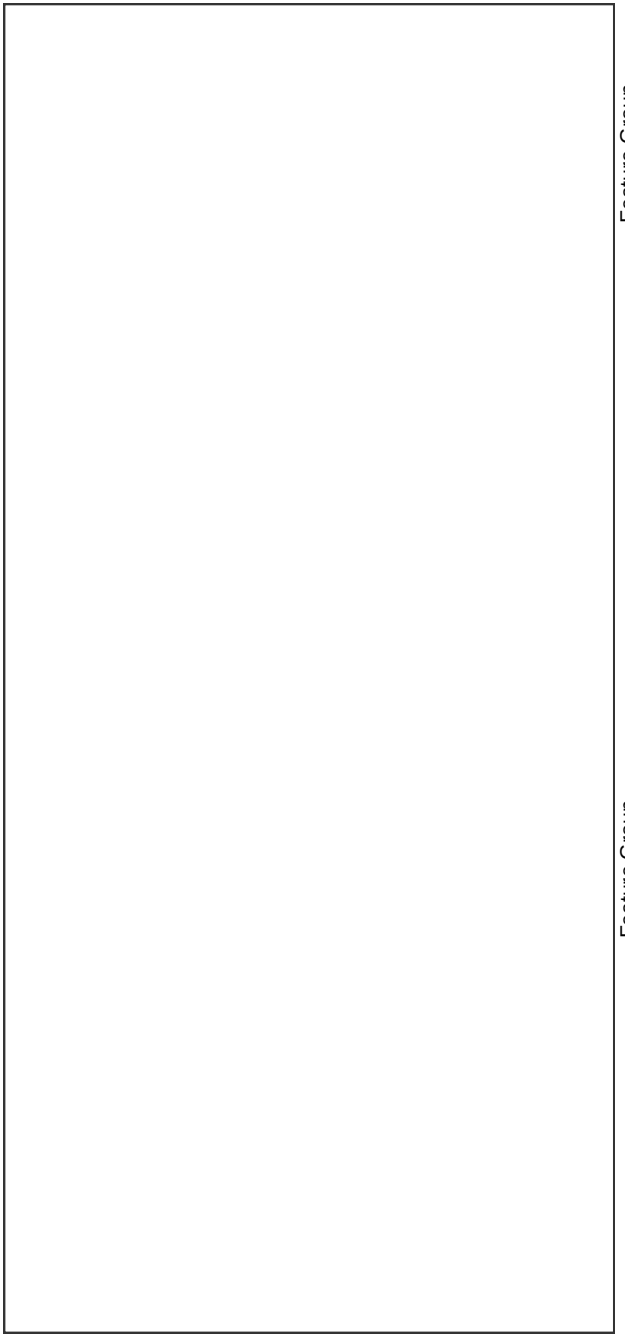


Weighted Coeffients Abs. Max

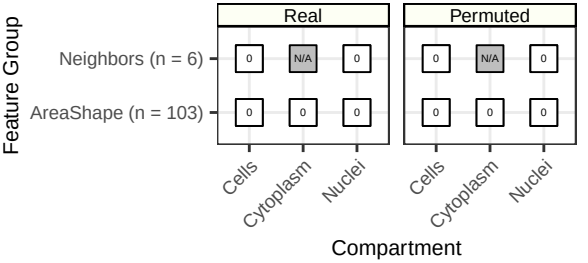
0

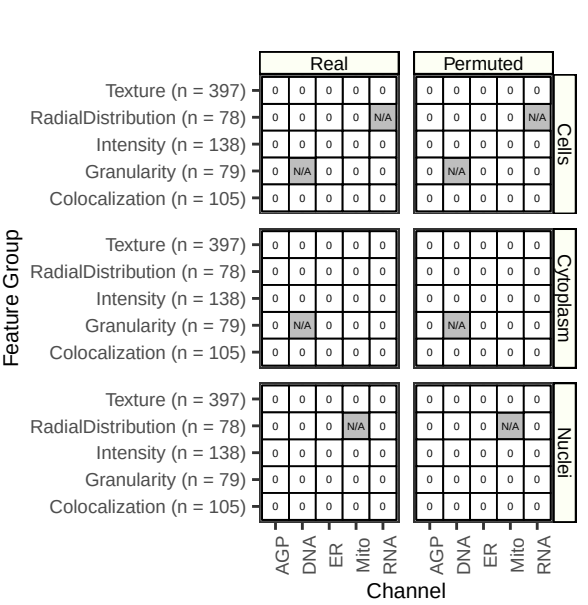
ROS−back

0% Non−Zero



Model Coefficient



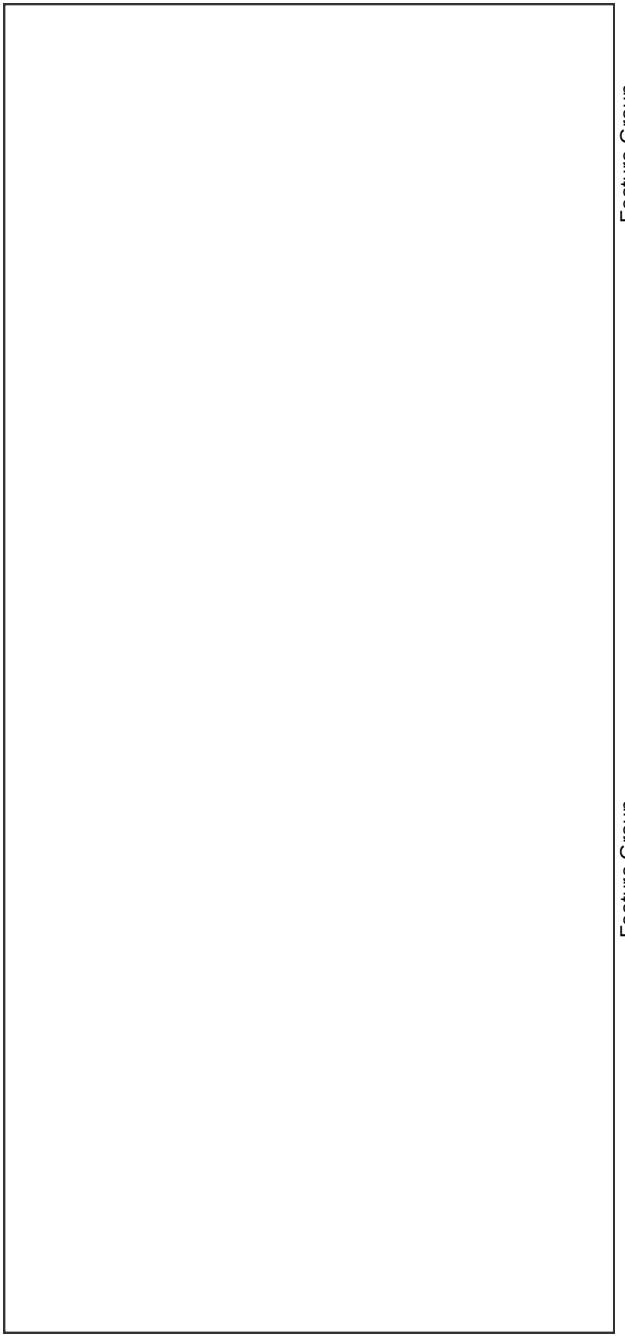


Weighted Coeffients Abs. Max

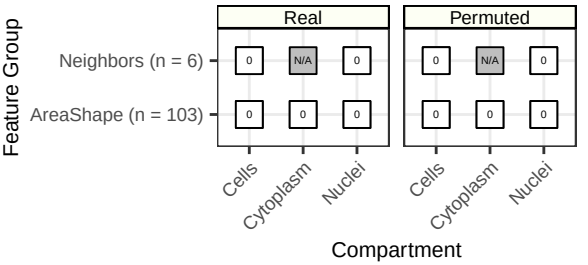
0

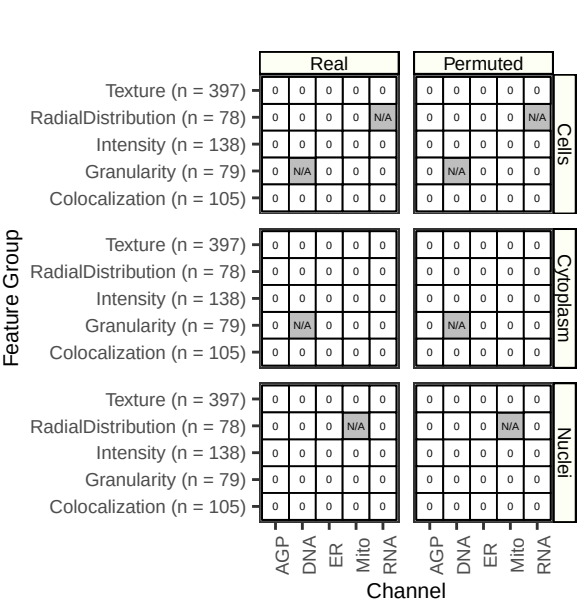
ROS

0% Non−Zero



Model Coefficient





Weighted Coeffients Abs. Max

0