

# 1 Data Exploration and Visualization — GSE69914

## 1.1 Missingness

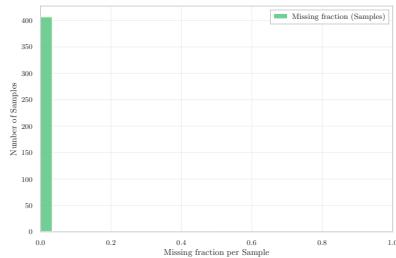


Figure 1: Missing per sample

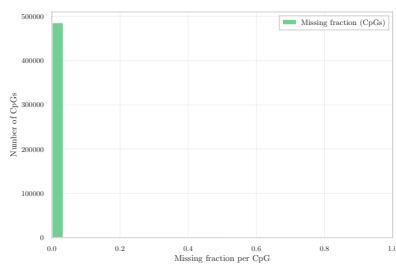


Figure 2: Missing per CpG

## 1.2 Beta-value distributions

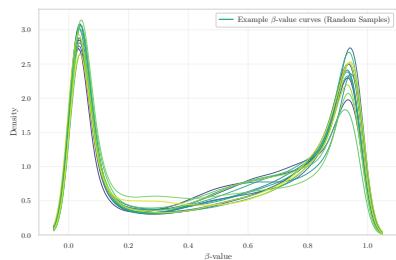


Figure 3: Random sample density

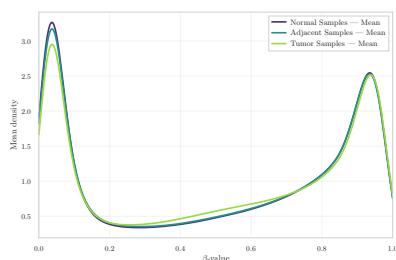


Figure 4: Group mean density

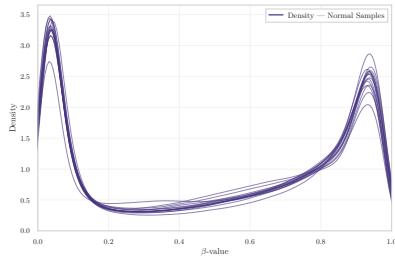


Figure 5: Ridge plot — Normal

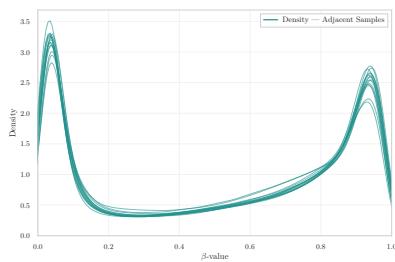


Figure 6: Ridge plot — Adjacent

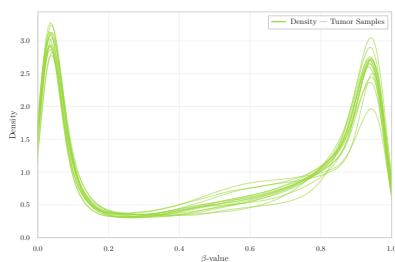


Figure 7: Ridge plot — Tumor

### 1.3 Mean beta

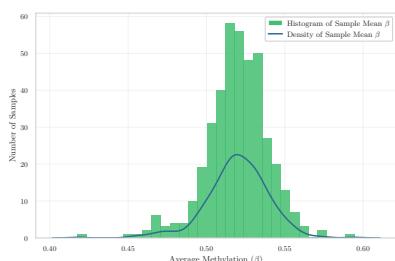


Figure 8: Mean beta per sample

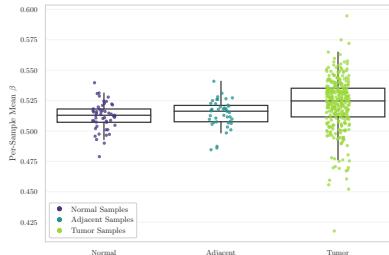


Figure 9: Mean beta distribution by group

## 1.4 Outlier analysis

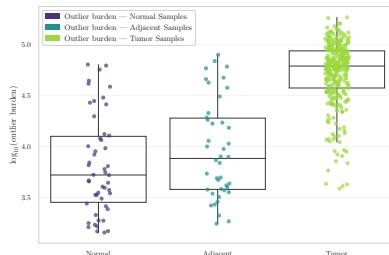


Figure 10: Outlier burden

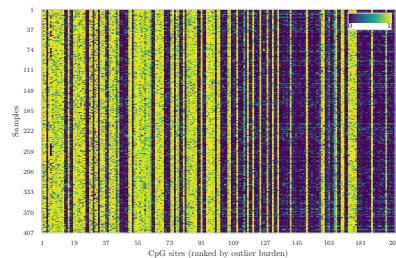


Figure 11: Heatmap of top outlier CpGs

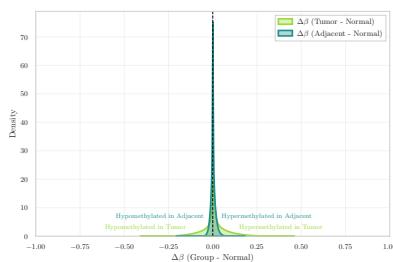


Figure 12: Delta-beta overlaid

## 1.5 Variance and correlations

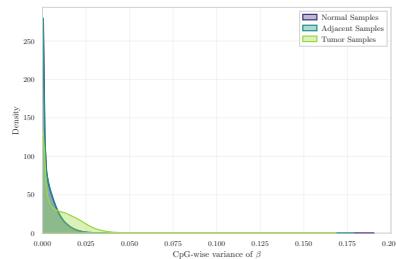


Figure 13: Intragroup variance

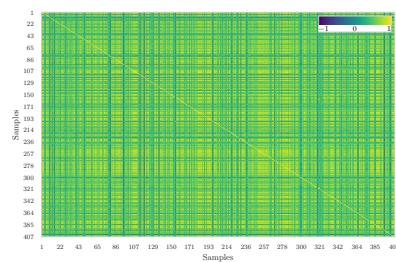


Figure 14: Sample correlation heatmap

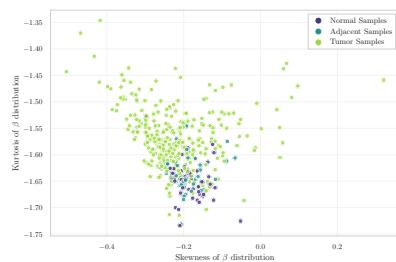


Figure 15: Skewness and kurtosis

## 1.6 Dimensionality reduction

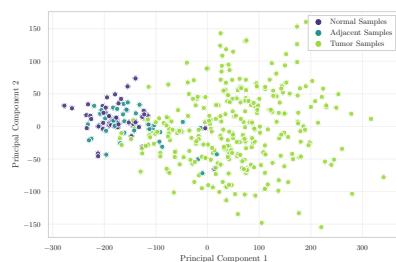


Figure 16: PCA

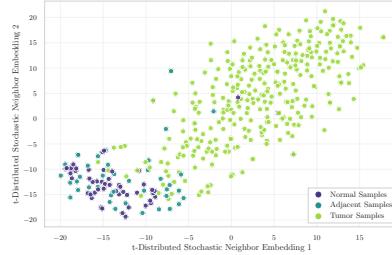


Figure 17: t-SNE

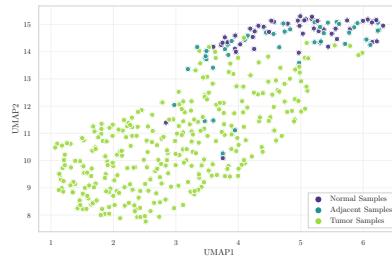


Figure 18: UMAP

## 1.7 Manifest coverage

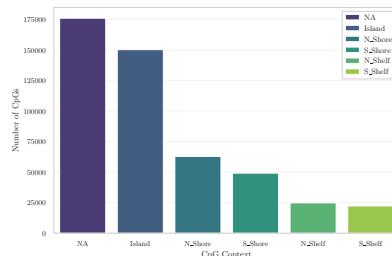


Figure 19: Coverage by CpG context

## 1.8 Dynamic-network proxies

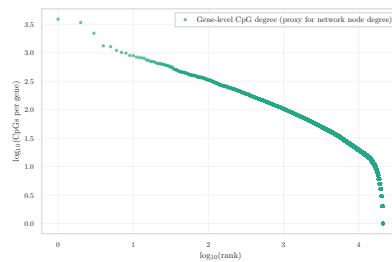


Figure 20: Dynamic network — Degree proxy

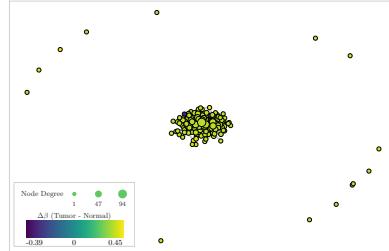


Figure 21: DNB network: Tumor minus Normal

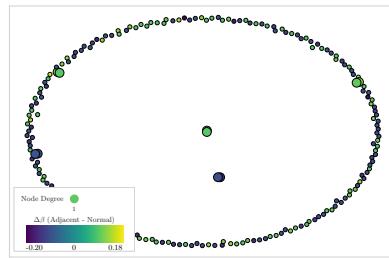


Figure 22: DNB network: Adjacent minus Normal

## 2 Data Exploration and Visualization — GSE225845

### 2.1 Missingness

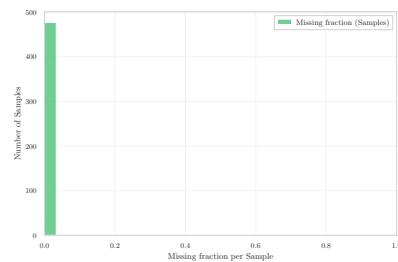


Figure 23: Missing per sample

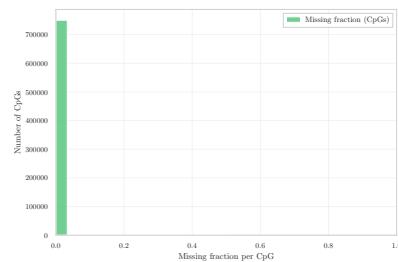


Figure 24: Missing per CpG

## 2.2 Beta-value distributions

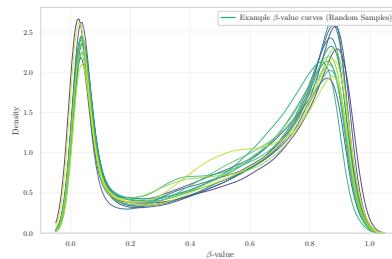


Figure 25: Random sample density

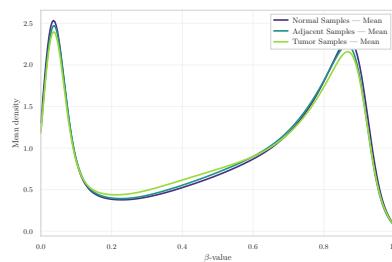


Figure 26: Group mean density

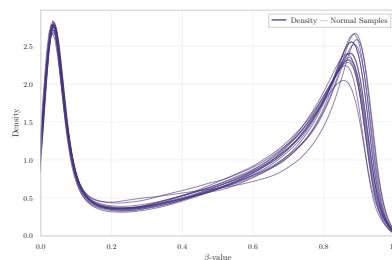


Figure 27: Ridge plot — Normal

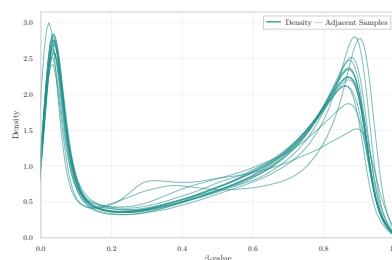


Figure 28: Ridge plot — Adjacent

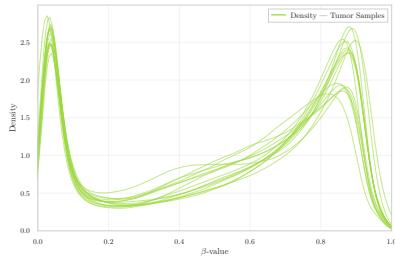


Figure 29: Ridge plot — Tumor

### 2.3 Mean beta

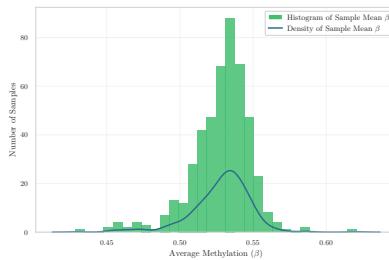


Figure 30: Mean beta per sample

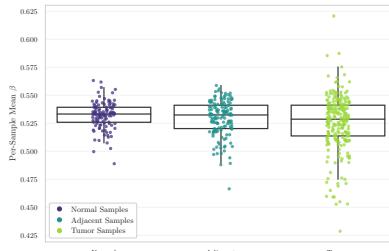


Figure 31: Mean beta distribution by group

### 2.4 Outlier analysis

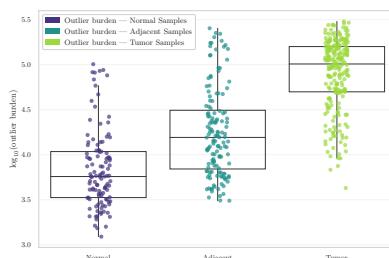


Figure 32: Outlier burden

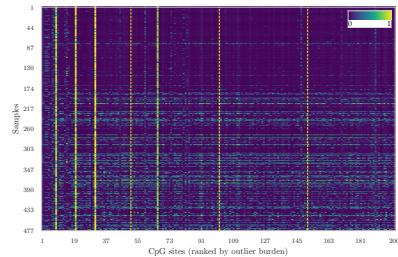


Figure 33: Heatmap of top outlier CpGs

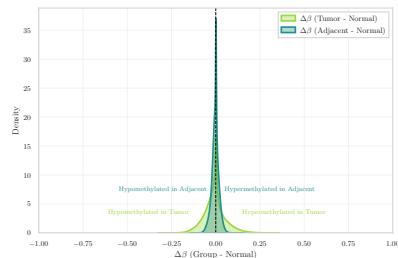


Figure 34: Delta-beta overlaid

## 2.5 Variance and correlations

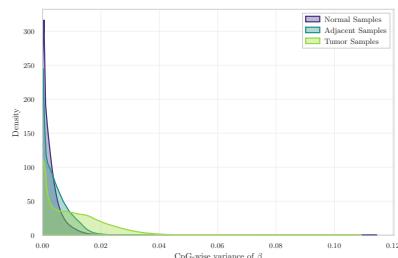


Figure 35: Intragroup variance

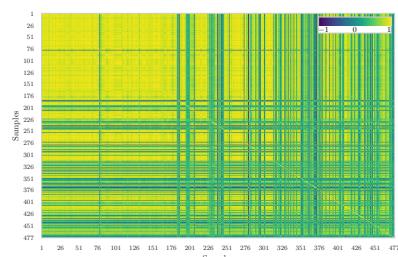


Figure 36: Sample correlation heatmap

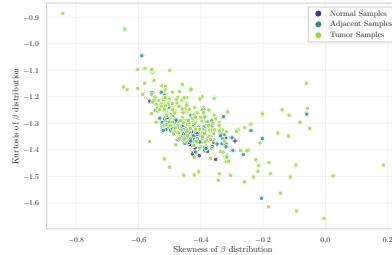


Figure 37: Skewness and kurtosis

## 2.6 Dimensionality reduction

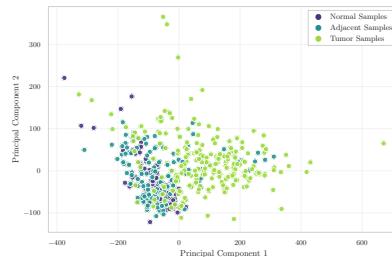


Figure 38: PCA

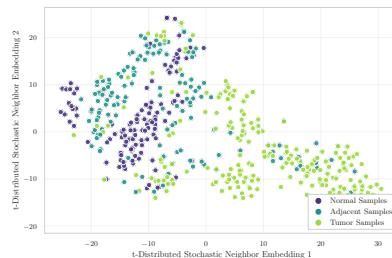


Figure 39: t-SNE

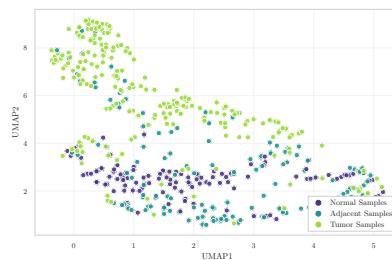


Figure 40: UMAP

## 2.7 Manifest coverage

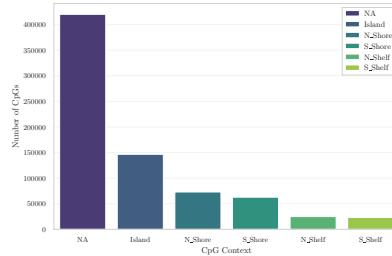


Figure 41: Coverage by CpG context

## 2.8 Dynamic-network proxies

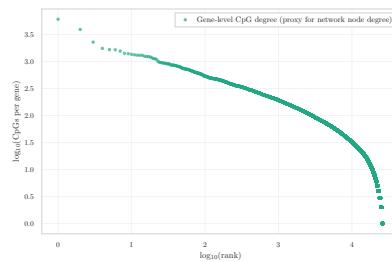


Figure 42: Dynamic network — Degree proxy

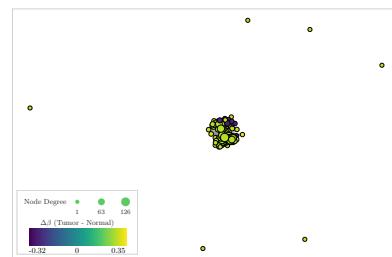


Figure 43: DNB network: Tumor minus Normal

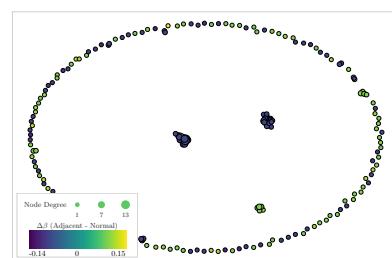


Figure 44: DNB network: Adjacent minus Normal

### 3 Data Exploration and Visualization — GSE287331

#### 3.1 Missingness

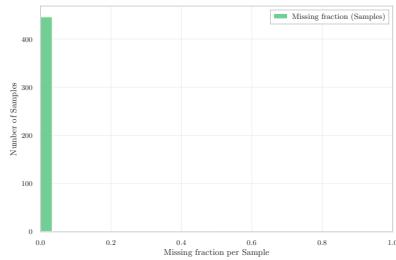


Figure 45: Missing per sample

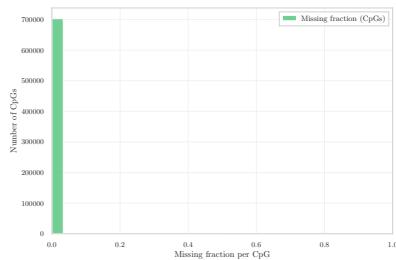


Figure 46: Missing per CpG

#### 3.2 Beta-value distributions

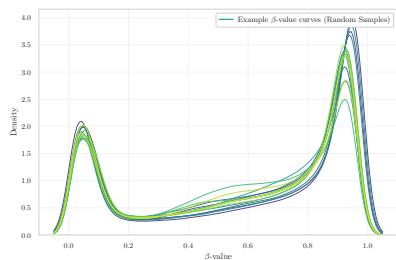


Figure 47: Random sample density

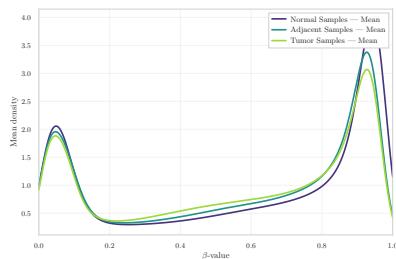


Figure 48: Group mean density

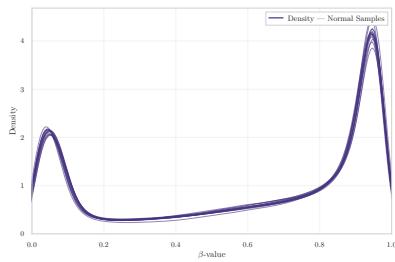


Figure 49: Ridge plot — Normal

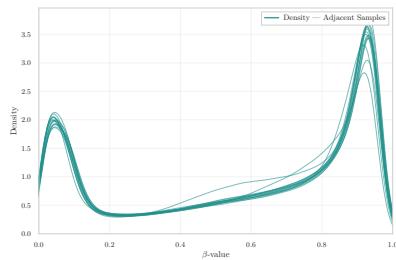


Figure 50: Ridge plot — Adjacent

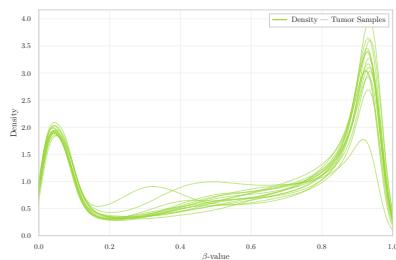


Figure 51: Ridge plot — Tumor

### 3.3 Mean beta

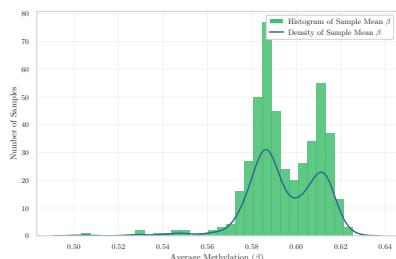


Figure 52: Mean beta per sample

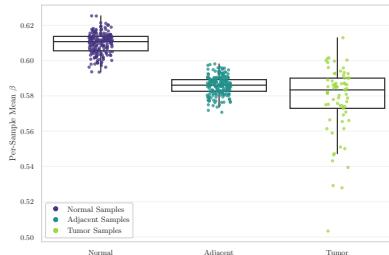


Figure 53: Mean beta distribution by group

### 3.4 Outlier analysis

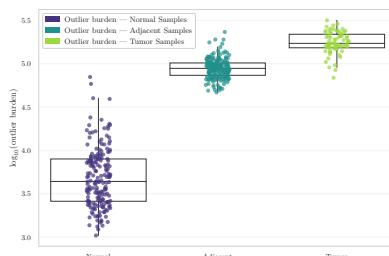


Figure 54: Outlier burden

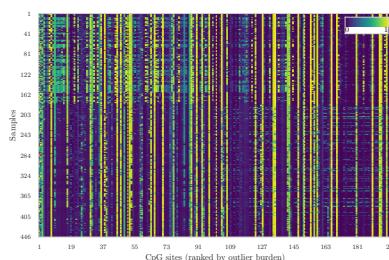


Figure 55: Heatmap of top outlier CpGs

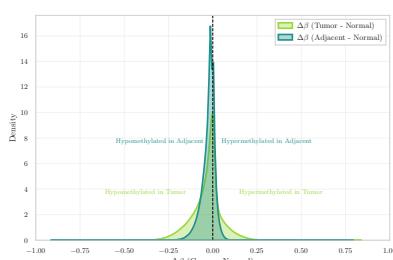


Figure 56: Delta-beta overlaid

### 3.5 Variance and correlations

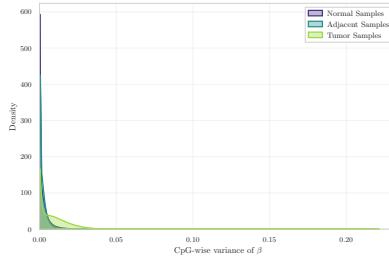


Figure 57: Intragroup variance

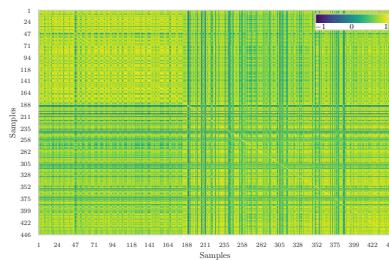


Figure 58: Sample correlation heatmap

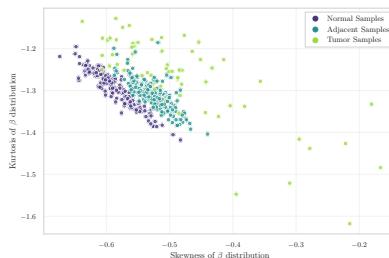


Figure 59: Skewness and kurtosis

### 3.6 Dimensionality reduction

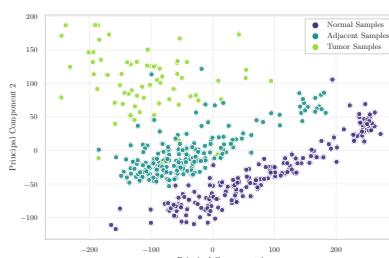


Figure 60: PCA

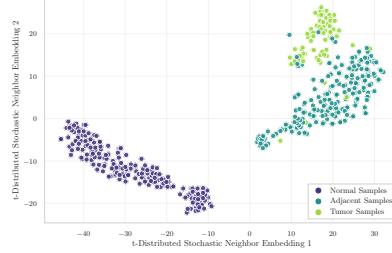


Figure 61: t-SNE

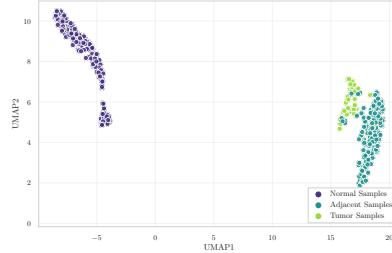


Figure 62: UMAP

### 3.7 Manifest coverage

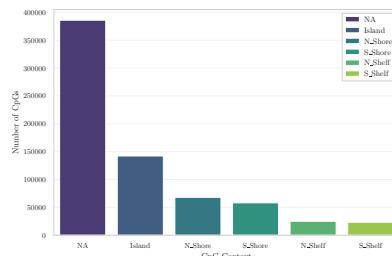


Figure 63: Coverage by CpG context

### 3.8 Dynamic-network proxies

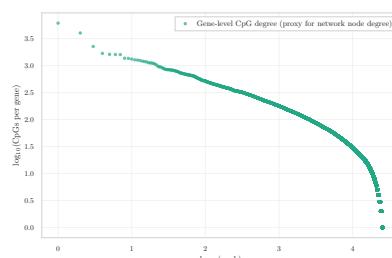


Figure 64: Dynamic network — Degree proxy

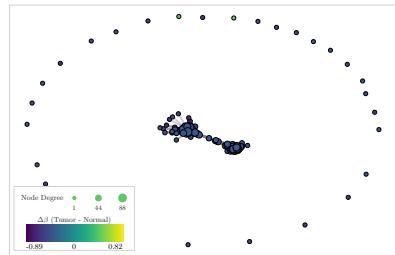


Figure 65: DNB network: Tumor minus Normal

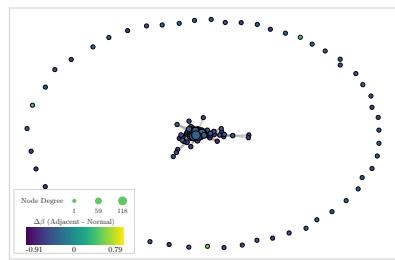


Figure 66: DNB network: Adjacent minus Normal