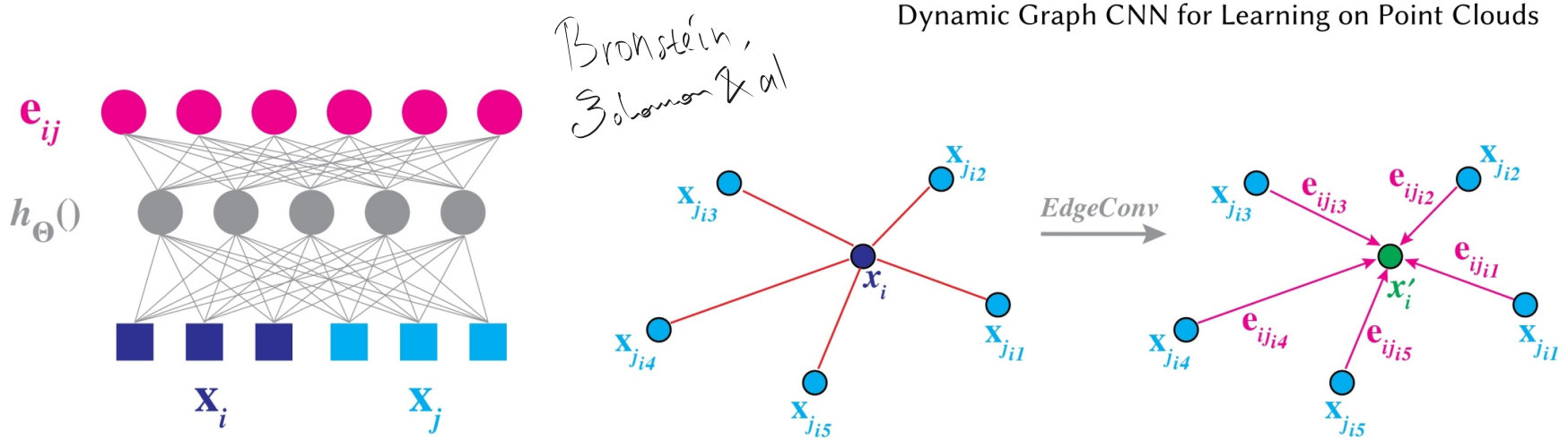


Fig. 2. **Left**: Computing an edge feature, $\mathbf{e}_{ij}$ (top), from a point pair, $\mathbf{x}_i$ and $\mathbf{x}_j$ (bottom). In this example, $h_\Theta()$ is instantiated using a fully connected layer, and the learnable parameters are its associated weights. **Right**: The EdgeConv operation. The output of EdgeConv is calculated by aggregating the edge features associated with all the edges emanating from each connected vertex.

(Message passing)

```
48      def message(self, x_i, x_j):
49          return self.nn(torch.cat([x_i, x_j - x_i], dim=1))
```

J.M. Fei

$[x_i, \log_{x_i} x_j]$

via geoopt/geoopt

However, there are implementations difficulties