

C++ code 11.9.3: Sub-problem (11-9.c): Implementation of `fluxdiffsource` → [GitLab](#)

```
2 template <typename FunctionF, typename SourceFunction>
3 Eigen::VectorXd fluxdiffsource(const Eigen::VectorXd &mu, FunctionF &&F,
4                               SourceFunction &&s, double h) {
5     unsigned n = mu.size();
6     Eigen::VectorXd fd = Eigen::VectorXd::Zero(n);
7
8     // constant continuation to the left by mu[0]
9     fd[0] = F(mu[0], mu[1]) - F(mu[0], mu[0]) - h * s(mu[0]);
10    for (unsigned j = 1; j < n - 1; ++j) {
11        fd[j] = F(mu[j], mu[j + 1]) - F(mu[j - 1], mu[j]) - h * s(mu[j]);
12    }
13    // constant continuation to the right by mu[n - 1]
14    fd[n - 1] =
15        F(mu[n - 1], mu[n - 1]) - F(mu[n - 2], mu[n - 1]) - h * s(mu[n - 1]);
16
17    return fd;
18 }
```