

(a) C++ interface

```
1 #include <xtensor/xtensor.hpp>
2 #include <evalhyd/evalp.hpp>
3
4 xt::xtensor<double, 2> obs =
5     {{4.7, 4.3, 5.5, 2.7, 4.1}};
6 xt::xtensor<double, 4> prd =
7     {{{{5.3, 4.2, 5.7, 2.3, 3.1},
8         {4.3, 4.2, 4.7, 4.3, 3.3},
9         {5.3, 5.2, 5.7, 2.3, 3.9}}}};
10 xt::xtensor<double, 2> thr = {{4., 5.}};
```

```
11 auto res = (
12     evalhyd::evalp(obs, prd, {"BS"}, thr, "high")
13 );
```

(c) R interface

```
1 library(evalhyd)
2
3 obs ← rbind(c(4.7, 4.3, 5.5, 2.7, 4.1))
4 prd ← array(
5     rbind(c(5.3, 4.2, 5.7, 2.3, 3.1),
6         c(4.3, 4.2, 4.7, 4.3, 3.3),
7         c(5.3, 5.2, 5.7, 2.3, 3.9)),
8     dim=c(1, 1, 3, 5)
9 )
10 thr ← rbind(c(4., 5.))
```

```
11 res ← (
12     evalhyd::evalp(obs, prd, c("BS"), thr, "high")
13 )
```

(b) Python interface

```
1 import numpy
2 import evalhyd
3
4 obs = numpy.array([[4.7, 4.3, 5.5, 2.7, 4.1]])
5 prd = numpy.array([[[[5.3, 4.2, 5.7, 2.3, 3.1],
6                     [4.3, 4.2, 4.7, 4.3, 3.3],
7                     [5.3, 5.2, 5.7, 2.3, 3.9]]]])
8 thr = numpy.array([[4., 5.]])
```

```
9 res = (
10     evalhyd.evalp(obs, prd, ["BS"], thr, "high")
11 )
```

(d) Command line interface

```
1 cat "./obs/site_a.csv"
4.7,4.3,5.5,2.7,4.1
```

```
2 cat "./prd/leadtime_1/site_a.csv"
5.3,4.2,5.7,2.3,3.1
4.3,4.2,4.7,4.3,3.3
5.3,5.2,5.7,2.3,3.9
```

```
3 cat "./thr/site_a.csv"
4.,5.
```

```
4 res=$(evalhyd evalp \
5     "./obs/" "./prd/" "BS" \
6     --q_thr "./thr/" --events "high")
```