package com.twitter.search.common.relevance.features;

import com.google.common.base.Preconditions;

/\*\*

\* Scoring utilities

\*/

public final class ScoringUtils {

private ScoringUtils() { }

/\*\*

\* normalize a positive value of arbitrary range to [0.0, 1.0], with a slop

\* @param value the value to normalize.

\* @param halfval a reference value that will be normalized to 0.5

\* @param exp an exponential parameter (must be positive) to control the converging speed,

\* the smaller the value the faster it reaches the halfval but slower it reaches the maximum.

\* @return a normalized value

\*/

public static float normalize(float value, double halfval, double exp) {

Preconditions.checkArgument(exp > 0.0 && exp <= 1.0);

return (float) (Math.pow(value, exp) / (Math.pow(value, exp) + Math.pow(halfval, exp)));

}

}