KONRAD HEUVERS, Michigan Technological University, 1400 Townsend Dr., Houghton, MI 49931-1295, USA
A third logarithmic functional equation and Pexider generalizations (joint work with Palaniappan Kannappan)

Let $f\colon\ ]0,\infty[\ \to \mathbb{R}$ be a real valued function on the set of positive reals. Then the functional equations:

$$f(x+y) - f(xy) = f(1/x + 1/y)$$
$$f(x+y) - f(x) - f(x) = f(1/x + 1/y)$$

and

$$f(xy) = f(x) + f(y)$$

are equivalent to each other.
If $f, g, h\colon\ ]0,\infty[\ \to \mathbb{R}$ are real valued functions on the set of positive reals then

$$f(x+y) - g(xy) = h(1/x + 1/y)$$

is the Pexider generalization of

$$f(x+y) - f(xy) = f(1/x + 1/y).$$

We find the general solution to this Pexider equation.
If $f, g, h, k\colon\ ]0,\infty[\ \to \mathbb{R}$ are real valued functions on the set of positive reals then

$$f(x+y) - g(x) - h(y) = k(1/x + 1/y)$$

is the Pexider generalization of

$$f(x+y) - f(x) - f(y) = f(1/x + 1/y).$$

We find the twice differentiable solution to this Pexider equation.