1011-00-346   **Andreas Dr. Ruffing** (`ruffing@ma.tum.de`), Munich, Germany, and **Maria Meiler*** (`pulchinella@gmx.de`), Kriegerstrasse 2, D-81545 Munich, Munich, Germany. *Discrete Solutions of Basic Diffusion Equations.*

A solution of the one-dimensional Diffusion Equation fulfills for a definite time value t the continuous L1-property. It will be presented a discretization of this continuous solution by employing the Basic Difference Operator. Because of the complicate oscillation behaviour one of the challenges is to find a proper Basic Exponential Function which still provides the indispensable L1-property of the sought-after solution. (Received August 30, 2005)