962-30-689   **Katsuya Ishizaki** (`ishi@nit.ac.jp`), Department of Mathematics NIPPON Institute of Technology 4-1 Gakuendai Miyashiro Minamisaitama Saitama 345–8501, JAPAN, and. *Value distribution theory and some functional equations.*

In this talk, we will present some applications of the value distribution theory to functional equations, in particular, q-difference equations $\sum_{j=0}^{n} a_j(z) f(q^j z) = Q(z)$, where $0 < |q| < 1$ is a complex number, a_j, $j = 0, \ldots, n$ $(a_n a_0 \neq 0)$ and Q are rational functions. We consider the existence theorem of meromorphic solutions, the regularities of the growth of meromorphic solutions, and the hypertranscendency of solutions over $\mathbb{C}(z)$.