1138-35-279 **Abbas Moameni*** (momeni@math.carleton.ca), ottawa, k1s5b6, Canada. *Principle of symmetric criticality revisited; Critical point theory on convex sets.* Preliminary report.

In a wide range of mathematical problems the existence of a solution is equivalent to the existence of a fi xed point for a suitable map or a critical point for an appropriate variational or hemi-variational problem. In this talk we shall provide a principle that allows us to study problems of the general form $0 \in F(u)$, for a possibly multi-valued map F on a given convex set K. This variational principle has many applications in partial differential equations while uni fes and generalizes several results in nonlinear Analysis such as some fixed point theorems, critical point theory on convex sets and the principle of symmetric criticality. (Received February 12, 2018)