

- BRUNO BENTZEN, *Bishop's mathematical intuitionism*.
School of Philosophy, Zhejiang University, 866 Yuhangtang Rd, China.
E-mail: bbentzen@zju.edu.cn.

In his seminal book *Foundations of Constructive Analysis*, Errett Bishop develops a form of constructive mathematics that rejects the theory of the continuum proposed by L.E.J. Brouwer and thus his intuitionistic mathematics altogether. While Bishop's brand of constructivism had considerably more success in drawing the attention of working mathematicians, discussions of the philosophy that underlies his program of constructivization of mathematics remain rare in the literature, with the exception of works by Nicolas Goodman, Helen Billinge, and Laura Crosilla.

In this talk I argue that despite his rejection of Brouwer's intuitionistic mathematics, the philosophical position that underlies Bishop's constructive mathematics can actually be identified as a form of mathematical intuitionism as well, broadly understood in Arend Heyting's sense as the commitment to the two following basic tenets:

- mathematics is meaningful and eludes formalization;
- all mathematical objects are mental constructions given in intuition.

I shall develop and defend an intuitionistic interpretation of Bishop's philosophical views by supporting the two tenets of intuitionism above with textual evidence from his philosophical writings. My intention is not to defend Bishop's own philosophical claims or suggest that he must have thought of himself as an intuitionist in my sense. All I am claiming is that his thought provides scope for a coherent intuitionist understanding of mathematics.