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**John S Kulesza\*** (jkulesza@gmu.edu). *A useful technique for converting esoteric spaces into  $N$ -compact ones.*

We present a technique for transforming certain esoteric spaces into  $N$ -compact ones with special properties and give two applications. Both examples are metrizable.

If  $X$  is  $E$ -compact, then  $Exp_E X$  denotes the smallest cardinal  $\kappa$  for which  $X$  embeds in  $E^\kappa$  as a closed set. Also,  $N([0, 1])$  denotes the Novak number of  $[0, 1]$ . The first example  $X$ , assuming  $\omega_1 < \mathfrak{c} = N([0, 1])$ , satisfies  $Exp_R X < Exp_N X$ , and thus gives a consistent solution to a problem of Mrowka and van Douwen (in his "Handbook of set theoretic topology" article). The second example  $Y$  illustrates, consistently, that there is no completion theorem for  $N$ -compact metrizable spaces. That is, assuming CH fails,  $Y$  is an  $N$ -compact metrizable space which admits no  $N$ -compact completion. (Received September 08, 2016)